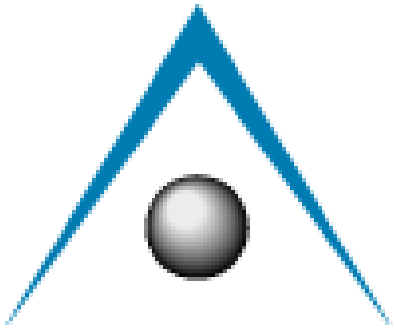

AMES LABORATORY

PERFORMANCE REPORT
Mid-Year 2004

Prepared: July 15, 2004

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Preface

As required under Iowa State University's Contract (W-7405-ENG-82, Modification 364), the following report details the midyear progress on both performance measures and the self-assessment efforts of the Laboratory's various functional areas. An overall rating for the Laboratory has not been given since many of the measures are annual measures and many of the self-assessments are in progress. The Laboratory expects that the annual results will be similar to that reported in the Self-Assessment and Performance Measures Annual Report dated March 2004. Copies of that report are available by contacting the Laboratory's Office of Industrial Outreach and Technology Administration (515-294-6486, or covey@ameslab.gov).

Critical Operations

SCIENCE

OBJECTIVE 1.0: Advancement in the understanding of the fundamental nature of matter and energy.

MEASURE 1.1: Quality Of Research

Reviewers will evaluate the overall quality of the research performed. Depending on the nature of the program, reviewers will consider the following:

SCIENCE: Success in producing original, creative scientific output that advances fundamental science and opens important new areas of inquiry; success in achieving sustained progress and impact on the field; and recognition from the scientific community, including awards, peer-reviewed publications, citations, and invited talks.

TECHNOLOGY: Whether there is a solid technical base for the work; the intrinsic technical innovativeness of the research; the importance of contributions made to the scientific and engineering knowledge base underpinning the technology program; and recognition from the technical community.

MEASURE 1.2: Relevance To DOE Missions And National Needs

Reviewers will consider whether the research fits within and advances the missions of DOE; contributions to U.S. leadership in the international scientific and technical communities; contributions to the goals and objectives of the strategic plans of DOE and other national programs; and the extent of productive interaction with other science and technology programs. Depending on the nature of the program, reviewers will consider the following:

SCIENCE: The program's track record of success in making scientific discoveries of technological importance to DOE missions and U.S. industry; the degree of industrial interest in follow-on development of current research results; and the effective use of national research facilities that serve the needs of a wide variety of scientific users from industry, academia, and government laboratories.

TECHNOLOGY: The value of successfully developing pre-commercial technology, to DOE, other federal agencies, and the national economy; the extent to which expected benefits justify the program's risks and costs; and, where appropriate, the degree of industrial interest, participation, and support.

MEASURE 1.3: Effectiveness And Efficiency Of Research Program Management

Reviewers will consider the quality of research plans; whether technical risks are adequately considered; whether use of personnel, facilities,

and equipment is optimized; success in meeting budget projections and milestones; the effectiveness of decision-making in managing and redirecting projects; success in identifying and in avoiding or overcoming technical problems; the effectiveness with which technical results are communicated to maximize the value of the research results and to gain appropriate recognition for DOE and the Laboratory; effectiveness in developing, managing, and transferring to industry intellectual property and technical know-how associated with research discoveries; and, the degree to which customer and stakeholder expectations are consistently met.

WEIGHT (All measures): 70%

MIDYEAR RESULTS: The Laboratory's on-site review took place June 14,2004 in Ames. The review was very favorable. Upon completion of all the Office of Science laboratories' on-site reviews, there were three followup action items to be accomplished at Ames Laboratory:

- Calculation of MII assuming two buildings are removed. (Resolved and no longer an issue.)
- Provide documentation based on life cycle analysis to show that less than 2% is appropriate. (Action = Barton)
- White paper on how to reflect safety responsibilities throughout the line organization, particularly with respect to university students at the laboratory. (Action = Barton)

The second and third action items are currently being worked on and will be completed within the next few months.

ENVIRONMENT, SAFETY AND HEALTH

OBJECTIVE 2.1: Ensure the safety and health of the public and the workforce, and protect the environment in all activities. The contractor shall make ES&H an integral and visible part of its work planning and execution process.

MEASURE 2.1.1: The contractor shall undertake process improvement efforts to strengthen its safety mechanisms (programs and practices).

EXPECTATION 2.1.1: The following actions shall be performed to support the improvement of the Laboratory's Integrated Safety Management System (ISMS).

1. Conduct a self-assessment on the implementation of the environmental aspect and impact procedure. The self-assessment must address:
    - The mechanisms for determining significance of each specific environmental aspect.
    - The documented process that ensures that all operations under the control of Ames Laboratory are included and that the identified significant aspects are considered and reflected in the environmental objectives (i.e., energy conservation) as determined to be appropriate for their operations.
    - The provisions for the periodic review of aspects and impacts to ensure that it is current for operations.
    - The level of implementation of the environmental aspects procedure by providing results concerning the environmental objectives that have been set for Ames Laboratory.
2. Conduct a review of the Laboratory's lockout/tagout program.
3. Develop a plan, with cost estimates, to treat and dispose of the remaining inventory of excess radioactive materials that cannot be disposed of at Hanford. Initiate disposal of excess radioactive materials as funding allows and opportunities become available.
4. Review the Laboratory's handling and storage of personal protective equipment (PPE). Emphasis should be on the proper storage of the PPE when not in use through observations during the Independent Walk-through.
5. Develop and implement a corrective action and/or casual analysis procedure which defines those analytical methodologies Ames Laboratory will utilize in conducting casual analysis.
6. Training for personnel responsible for implementing the corrective action and/or casual analysis procedure must be completed.

PERFORMANCE RATING:

Performance Level	Performance Expectations
Outstanding	All six actions completed and acceptable.
Excellent	Five of the six actions completed and acceptable.
Good	Four of the six actions completed and acceptable.
Marginal	Three of the six actions completed and acceptable.
Unsatisfactory	Two of the six actions completed and acceptable.

WEIGHT 2.1.1: 5%

MIDYEAR RESULTS (by item number):

1. (Lead Specialist – Dan Kayser) Procedure 10200.075, *Environmental Aspects Procedure,* was used to determine the significance of each aspect. To ensure that all operations were considered, an EMS Steering Group was formed. This Group included research, facility services, engineering services, shipping & materials handling, purchasing and environment, safety, and health personnel. This procedure may be used to re-rank aspects as needed; however, existing procedures will be able to identify new aspects should they arise. Objectives for the Laboratory's significant aspect(s) will be tracked by the appropriate group responsible. Integration of EMS into the Laboratory's ISMS continues and is full integration planned by December 31, 2004.

2. (Lead Specialist – Shawn Nelson) A review of the Lockout Tagout Program will be performed in the second half of the calendar year.

3. (Lead Specialists – Dan Kayser and Jay Beckel) A summary list of "difficult-to-dispose" waste materials is shown below. The table includes the container identification number (CIN), description, disposal vendor, estimated disposal cost and transportation cost. As indicated, the UF6 materials will be shipped to Brookhaven National Laboratory (BNL) in August where a contractor (IES) will treat and dispose of this material. The UH3 will also be shipped to BNL in August and BNL will verify the material as UH3 and dispose it properly. The boron nitride, UF4, and uranium nitrate will be accepted at Hanford. Other materials (contaminated building debris, sealed sources and excess radioactive materials) will also be disposed of at Hanford. However, it is not clear when the Laboratory will be able to ship due to the recent ROD DOE has issued for waste going to Hanford. Also, there is the potential that the Laboratory may have some newly generated "mixed waste". This waste consists of sludge from a sump at the Waste Handling Facility (WHF) and from scale and sludge from drain lines in Wilhelm Hall and the WHF. Preliminary Laboratory analysis shows that there are heavy metals present. Further consolidation and additional Laboratory analysis is required to further characterize this waste.

ESTIMATED COST FOR DISPOSAL

CIN	Description:	Vendor	Disposal Cost	Transportation Cost
54	Sodium Fluoride	Perma-Fix	$ ~ 1,650.00	included
19762,18933, 19764	CaCl, ThCl4, UCl4	Perma-Fix	$ ~ 1,650.00	included
56, 19549, 19550, 19540	Boron Nitride, UF4, U. Nitrate	Hanford	n/a	n/a
19763	UH3	BNL	n/a	$ ~ 200.00
50, 56, 57	UF6	BNL	$ 6,230.00	$ ~ 750.00

* Costs are dependent upon approval and acceptance at end disposal facility.

4. (Lead Specialist – Shawn Nelson) To date there have been eight personal protective equipment concerns identified during the Independent Walk-Throughs. Six of the concerns related to deteriorating chemical gloves, one related to a scratched face shield and one relating to dust masks not stored properly. Proper use and storage of PPE continues to be an emphasis during the Independent Walk-Throughs and Readiness

Reviews. PPE training continues to be made available via both computer based and classroom sessions.

5. (Lead Specialists – Shawn Nelson and G. P. Jones) A rewrite of the Laboratory's Event Reporting Program (Plan 40000.001) was completed as of 5/1/04. A rewrite of Corrective Action Development, Tracking, and Verification (Procedure 10200.039) was also competed 5/1/04. These documents provide detail on the Laboratory's corrective action and causal analysis processes.

6. (Lead Specialist – Shawn Nelson) TapRoot Training was completed May 7, 2004. The training included software for performing causal analysis.

MEASURE 2.1.2: The contractor shall measure and improve performance in key areas to strengthen the Laboratory's ISMS.

EXPECTATION 2.1.2: The following results shall be measured and utilized to assess and develop program and practice changes to improve and support the effectiveness of the Laboratory's ISMS.

1. Percentage completion rate of concerns from the Annual Independent Walk-through completed within sixty days of issuing the report is greater than 95%.
2. Completion rate of Emergency Awareness Training (EAT) shall be greater than the average of the previous four years (90%).
3. Number of Topical Appraisals performed by ESH&A shall be greater than the average of the previous two years.
4. The number of concerns from the Annual Independent Walk-through in the category of "electrical" shall be less than the average of the previous four years (152).
5. Number of discrepancies in the category of "unsecured door to high value equipment" shall be less than the average of the previous four years (543).

PERFORMANCE RATING:

Performance Level	Performance Expectations
Outstanding	Process improvement achieved in all five categories.
Excellent	Process improvement achieved in four of the five categories.
Good	Process improvement achieved in three of the five categories.
Marginal	Process improvement achieved in two of the five categories.
Unsatisfactory	Process improvement achieved in one or less of the five categories.

WEIGHT 2.2: 5%

MIDYEAR RESULTS (by Item number) :

1. (Lead Specialist – Shawn Nelson) All of the Independent Walk-Through concerns to date have been corrected. The following programs have completed the required annual Independent Walk-Throughs: Environmental and Protection Sciences, Administrative Services, IPRT, Human Resources, Accounting, Budget, Information Services, Occupational Medicine, Director's Office, Deputy Director's Office, Chief Operations Office, Industrial Outreach, Public Affairs, Graphics, Internal Auditor, Science & Technology Division Offices, Facilities Services, Engineering Services, ESH&A. Materials Chemistry completed the walk-through May 25, 2004 and has until July 30, 2004 to correct the identified concerns. Materials and Engineering Physics and the Materials Preparation Center completed the walk-through June 29, 2004 and have until August 31, 2004 to correct the identified concerns. Past experience has indicated that

both Materials Chemistry and Materials and Engineering Services will correct the identified concerns on time.

2. (Lead Specialist – Kate Sordelet) The average completion rate for EAT for the past four years is 90.8 %. Mid-year results are 90.8 %, a comparable completion rate. Efforts to increase the completion rate of Emergency Awareness Training (EAT) will continue.

3. (Lead Specialists – See Table) The number of Topical Appraisal completed or pending for 2004 are listed below. According to this information, twelve (12) appraisal will be completed in 2004. The average of the previous two years is 10.5 appraisals (2002 – 10, 2003-11).

2004	Hoisting and Rigging Program	Nelson
Pending	Electrical Safety	Nelson
Pending	Confined Space Entry	Nelson
Pending	Lockout / Tagout	Nelson
Pending	Green Tag Procedure	Kayser
Pending	Low Level Waste Disposal Options	Kayser
Pending	Chemical Inventory	Withers
Pending	Chemical Hood Operation	Withers
Pending	Back Injury Prevention	Withers
Pending	Controls Over Select Chemicals	Withers
Pending	NFPA 10 Compliance	Jones
Pending	Badging Practice	Jones

4. (Lead Specialist – Shawn Nelson) The average number of electrical concerns for the last four years (from January 1 to June 30) is 62.25. The total number of electrical concerns identified this year is 46. The same programs completed the Independent Walk-Through in the last 4 years. It is anticipated that the number of electrical concerns for the entire year will be below the 4-year average.

5. (Lead Specialist – G. P. Jones) The average for the last four years is ~approximately 472 “unsecured doors”. The year-to-date status is 76 doors reported.

MEASURE 2.1.3: The contractor shall resolve ES&H-related deficiencies in a timely fashion.

EXPECTATION 2.1.3: Complete Ames Laboratory ES&H and Occurrence Report related corrective actions (as designated and agreed to by Ames Laboratory and Ames Area Office) within the originally scheduled due date.

PERFORMANCE RATING:

Performance Level	Performance Indicator
Outstanding	96-100% completed as scheduled
Excellent	86-95% completed as scheduled
Good	76-85% completed as scheduled
Marginal	60-75% completed as scheduled
Unsatisfactory	Less than 60% completed as scheduled

WEIGHT 2.1.3: 5%

MIDYEAR RESULTS: Corrective actions continue to be addressed in a timely fashion. Emphasis in 2004 has somewhat shifted toward completion of OSHA audit issues.

OBJECTIVE 2.2: Conduct all work and manage all Laboratory facilities with distinction, fully integrated with the scientific and technology mission, while being protective of our workers, the public, and the environment.

MEASURE 2.2.1: The contractor shall conduct topical assessments of ES&H and maintenance areas.

EXPECTATION 2.2.1: Performance of ES&H-required reviews and maintenance.

1. ES&H Topical Appraisals
2. Annual Independent Walk-through of Ames Laboratory Facilities
3. Readiness Review Process
4. ESH&A and Engineering Services Group (ESG) Inspections of Operational Analytical X-ray Devices

Points will be earned in accordance with the following scale:
1. Each topical appraisal documented earns 1 point (Maximum 10 points).
2. All Ames Laboratory facilities inspected in calendar year 2004 (10 points). (All or nothing)
3. A list of current activities is sent to Group/Section leaders for review to ensure that no significant modifications have occurred (5 points); and performance of 5-year Readiness Reviews of existing activities earns:

>95%	(5 points)
85% to 95%	(4 points)
76% to 84%	(3 points)
≤76%	(0 points)

4. Performance of inspections for operational analytical X-ray devices shall earn points in accordance with the following scale:
   - ESH&A annual inspections (5) – Points achieved based on the percent of X-ray machines annually inspected by ESH&A.
   - ESG semi-annual safety checks (5) – Points achieved based on percent of X-ray machines checked by ESG.

PERFORMANCE RATING:

Performance Level	No. of requirements met
Outstanding	> 38
Excellent	32 - 38
Good	39 - 31
Marginal	< 29

WEIGHT 2.2.1: 2.5%

MIDYEAR RESULTS (by item number):

1. (Lead Specialists – See Table) The number of Topical Appraisals completed or pending for 2004 are listed below. According to this information, twelve (12) appraisals will be completed in 2004.

2004	Hoisting and Rigging Program	Nelson
Pending	Electrical Safety	Nelson
Pending	Confined Space Entry	Nelson
Pending	Lockout / Tagout	Nelson
Pending	Green Tag Procedure	Kayser
Pending	Low Level Waste Disposal Options	Kayser
Pending	Chemical Inventory	Withers
Pending	Chemical Hood Operation	Withers
Pending	Back Injury Prevention	Withers
Pending	Controls Over Select Chemicals	Withers
Pending	NFPA 10 Compliance	Jones
Pending	Badging Practice	Jones

2. (Lead Specialist – Shawn Nelson) The following programs have completed the required annual Independent Walk-Throughs: Environmental and Protection Sciences, Administrative Services, IPRT, Human Resources, Accounting, Budget, Information Services, Occupational Medicine, Director's Office, Deputy Director's Office, Chief Operations Office, Industrial Outreach, Public Affairs, Graphics, Internal Auditor, Science & Technology Division Offices, Facilities Services, Engineering Services, ESH&A, Materials Chemistry, and Materials and Engineering Physics and Materials Preparation Center. Independent Walk-Throughs cover storage areas, adjacent restrooms, utility closets, etc.
3. (Lead Specialist – Jim Withers) The Safety Review Committee sent Group/Section Leaders a list of activities for review in March. A cover memo was attached requesting review of the activities. Activities that are due for a 5-year review in 2004 have been distributed to the appropriate ESH&A Lead Specialist and reviews are in progress.

MEASURE 2.2.2: *Total Recordable Case Rate* – The number of all occupational illnesses and occupational injuries resulting in loss of consciousness, restriction of work or motion, transfer to another job, or require medical treatment beyond first aid x 200,000 (100 employees working 40 hours per week for 50 weeks per year) / the actual number of hours worked.

EXPECTATION 2.2.2: Contractor should demonstrate measured improvement from previous contract period through development of scaled metrics.

PERFORMANCE RATING: Total Recordable Case Rate for CY2004:

Performance Level	No. of requirements met
Outstanding	< 1.4
Excellent	1.2 – 2.4
Good	> 2.4 – 3.4
Marginal	> 3.4 – 4.0
Unsatisfactory	> 4.0

WEIGHT 2.2.2: 2.5%

MIDYEAR RESULTS: One Recordable Case has occurred during the first and second quarters of 2004, giving us a predicted TRCR for the first half of the year of 0.62, or an "Outstanding" rating.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Discussion
An ORPS, CH—AMES-AMES-2004-0001, *Researcher Contacts 110VAC*, was filed following the report by the researcher that he had inadvertently brushed against an exposed electrical lead and received a mild shock. The identified corrective actions have been completed and the occurrence report has been closed (4/9/2004).

Midyear Report:
Critical Items

The 2003 Self-Assessment Report noted several opportunities for improvements planned for calendar year 2004. The status of these planned improvements are noted as follows:

The following opportunities for improvement have been identified.

- Proceed with development of a plan to reduce the Laboratory's inventory of mixed radioactive materials.
  Status: *With the assistance of Tony Bindokas, Dan Kayser and Jay Beckel are working on plans for disposal of all the remaining unused radioactive materials. The UF4 material is set to be disposed at Hanford, the Chlorine and Fluorine contaminated Uranium along with some small miscellaneous compounds is most likely going to be taken by a private waste vendor, Permafix, and the UF6 is planned to be shipped to Brookhaven National Laboratory as part of a combined effort to minimize UF6 holding at BNL, ANL, and Ames.*

- Improve process of determination of radiological background level in each building for dosimetry purposes.
  Status: *Although it takes time to change the dosimetry program process since badges are only issued quarterly, as of July 1, 2004, Ames Laboratory will now have 7 different series of badges, each having their own control (background) badges. The series were set up in an attempt to minimize differences in building background levels due to naturally occurring radioactive material (NORM) in the building materials. It is expected that the multiple background badges will reduce the artificially high dose reading to a lower minimal levels and will provide a more accurate assessment of each radiological worker's occupational dose.*

- Efforts to reduce the number of lacerations at the Ames Laboratory will continue with the implementation of new gloves, increased scrutiny of PPE Assessments, training and continued communication to Laboratory employees.
  Status: *Efforts continue to reduce lacerations at the Laboratory in all activities. Communication of the proper identification and use of gloves remains an emphasis during Readiness Review, Independent Walk-Through and numerous training topics. To date, no OSHA Recordable lacerations have occurred.*

- Improvements will be made in the gathering and management of Emergency Door Card information.

Status: *A database has been developed which addresses the room occupancy information and chemical inventories, and data from Groups and Programs have been imported and hand-entered. A query report is being developed that will allow the Groups to review/correct data annually for accuracy. Printing of door cards is pending the first update returns.*

- The IH will incorporate brief refresher training sessions on OSHA topics into the twice-yearly Safety Coordinator & Representative meetings. The appropriate ESH&A Specialist will teach these sessions.
  Status: *The spring meeting of the Safety Coordinators and Representatives presented information on the status of corrective actions related to the OSHA audit and also discussed preparations for the Integrated Safety Management System audit. Refresher training sessions, as discussed above, will commence at the fall meeting.*

- Event Report Program will undergo redesign.
  Status: *The Event Reporting Program plan and related documents were updated, reviewed, and finalized as of May 1, 2004. The updates reflected the concerns identified during the 2003 PAAA Program Review conducted by Ames Site Office personnel.*

- Causal Analysis process will be described in a revision to Corrective Action Development Procedure (Procedure 10200.039). Procedure will be revised as Corrective Action Development, Tracking and Verification.
  Status: *The revised Corrective Action Development, Tracking and Verification Procedure was signed and became effective May 1, 2004.*

Significant Changes

Radiological Protection

There have been no significant changes in the Health Physics program itself, although the Health Physics staff continues to tackle projects, big and small, on a daily basis.

The Ames Laboratory Waste Handling Facility has been completely stripped of possibly contaminated drain lines and all low level waste materials. The contaminated materials have been relocated to a new Radioactive Waste Area (RWA). The new area is locked and alarmed the same as the old facility was and is located much more conveniently to main campus than the previous location.

D&D of the former waste facility will continue throughout 2004. Currently, the basement and one half of the main level have been completely surveyed. There have been isolated minor contamination areas found and remediated, but overall the D&D has proceeded well.

Harley Wilhelm Hall: Harley Wilhelm Hall (HWH) rooms 13-29 have been monitored on a monthly basis to detect any breakdown of the fixed contamination that was found on the floor. The floor is scheduled to be sealed this year and the Health Physics staff will monitor before and during that process to prevent the spread of any contamination. In addition to sealing the floors in rooms 13-29, the floor drains in these rooms and the rooms directly above were removed. All drain lines running above this group of rooms was also removed and replaced with new pipe. All removed drains and drain lines showed varying amounts of residual Thorium and Uranium contamination buildup. These pipe sections are being analyzed and will be sent to Hanford in this year's low- level waste shipment.

Waste Handling Facility: As mentioned above, D&D progress continues and surveying is to be completed by late summer. The remainder of the year will be needed to organize data and generate a report summarizing the entire project up to the actual demolition. Following demolition, a MARRSSIM study will be conducted on the remaining land, which will then be released to Iowa State University.

Radioactive Materials incidents: There have been two instances where small quantities (much less than accountable) of material were turned into ESH&A during laboratory clean-outs and retirement clean-outs. None of these materials would create a hazard to laboratory personnel in the vicinity of the materials. All materials packages were labeled to show their contents and were collected by ESH&A to be properly inventoried and disposed. Each instance was also reviewed per the Occurrence Reporting criteria.

Annual x-ray audits: Annual x-ray audits are scheduled for July 2004.

Industrial Hygiene

There were no significant changes in the Laboratory's Industrial Hygiene Program in 2004, although several topical areas have received significant attention as a result of external audits.

Specific emphasis on the management of peroxide-forming chemicals continues with tracking of Ames Laboratory-purchased items and quarterly inspections. The site-wide document that was jointly prepared by ISU and AL staff is being re-evaluated for ways to make it more effective.

The proper use of chemical hoods has been an area of focus as a result of the ISMS review. Sash height and the use of Variable Air Volume systems was scrutinized and efforts are being made to improve compliance. The subject of electrical outlets in chemical hoods with flammables is currently being examined as a result of last year's OSHA audit.

Three topical appraisals are in the process of being conducted in 2004 and are summarized as follows:

1) CHEMICAL INVENTORY – The chemical inventory system is being examined. Efforts are being made to link space assignment information with the chemical inventory database. Additionally, specific queries are being examined to allow quick assessments of select chemicals (e.g. EPA "List of Lists").

2) CHEMICAL HOOD OPERATION – As stated above, chemical hoods were scrutinized during both the OSHA and ISMS reviews. The subject of electrical outlets in hoods is being studied by the Fire Safety Committee and the Electrical Safety Committee. Efforts are being made to improve compliance with proper operation of VAV systems including employee reminders and training on appropriate sash heights.

3) BACK INJURY PREVENTION – Significant efforts are being made to strengthen the Laboratory's Back Injury Prevention Program. A training module has been developed that addresses ways to reduce sprains and strains. Facilities Services has drafted a specific stretching regimen for snow shoveling. Activity Supervisors are being asked to identify specific activities that have increased risk for sprains and strains. Appropriate follow up will be conducted by ESH&A.

Industrial Safety

The Industrial Safety Program performed the following actions during 2004:

1. A topical appraisal of the Hoisting and Rigging Program was completed. As a result, improvements were made to both the written program in the ESH&A Program Manual and the Hoisting and Rigging Training Program.
2. Additional Arc /Flash Protection awareness training was provided to the Facilities Services personnel. A summary of hazards was discussed in the meeting pertaining to the Ames Laboratory Buildings.
3. A revised training module for Fall Protection was completed.
4. The Independent Walk-Through Program and the Program / Department Walk-Through Program were revised to include definitions of the quality assurance ratings, and the requirement of ESH&A to verify the closure of concerns receiving a High QA Rating, etc.
5. A review was performed of all circuit breaker panels and electrical disconnects to assure adequate access. Concerns were noted and are being corrected by Facilities Services.
6. One Topical Appraisal has been performed in 2004 to date (Hoisting and Rigging).
   - Hoisting and Rigging Program – Updates were made to the Hoisting and Rigging Program (Section 5.16) in the ESH&A Program Manual and the Classroom Training Module.

   Within each Topical Appraisal, the following were reviewed, edited or added if missing:
   - Review of the written program in the ESH&A Program Manual.
   - Review and updating the training programs (lesson plans, handouts, presentations, multi-media, etc.).
   - Review the findings from the Corrective Action 5 Tracking software utilized for the Independent Walk-Through Program. Analyze for trends and implement corrective actions appropriately.
   - Review of Training Needs Questionnaire (if applicable) to ensure that personnel are being identified correctly for training compliance.
   - Review Training Status (if applicable) from the Ames Laboratory Training Records System (ALTRS).

Fire Protection

The Fire Safety Committee (FSC) developed and implemented the following changes:

- A full assessment for compliance with the requirements for Fire Suppression System Testing/Maintenance/Inspection was conducted by the Fire Safety Committee in December 2003. In 2004, the FSC will return to selecting three routines for evaluation; an Annual, a Quarterly and a Monthly routine. All will be assessed against the criteria established by the appropriate NFPA Code.

- A formal inspection and documentation of the sprinkler systems was conducted by members of Plant Protection Section in CY2003, as required by NFPA 25. The next scheduled inspection is in September 2004. Results are forwarded to Facilities Services for corrective action and document archiving.

- The fire safety officer continues to perform inspections of Hot Work Areas during Independent Walk-Throughs in CY2004. Sites where routine hot work is conducted are assessed for compliance with hot work safety procedures. The observations are also used to identify locations of hot work that may have been missed during the initial inventory. These actions provide assurance of compliance with hot work requirements.

- The formal Hot Work Program was continued during CY2004. Permits are completed and left with the Plant Protection Section prior to initiating the hot work. Records are retained for one year then audited by the fire safety officer.

- Fire extinguisher testing, inspection and maintenance was conducted by members of Plant Protection Section, as required by NFPA 10. This is an on-going effort, with tasks scheduled throughout the year to provide a balanced workload and adequate extinguisher coverage continuously.

- NFPA 704 postings for rooms containing chemicals were updated during the year. This is an on-going effort by members of Plant Protection Section, with the task scheduled to commence after the annual chemical inventory is compiled.

Environmental/Waste Management

The Environmental/Waste Program performed the following items in 2004:

- LLW is now being processed, stored, and package in the old graphite shop, which has been renovated and is now the Radioactive Waste Area (RWA).
- Outdated peroxide forming chemicals are deemed waste and properly disposed.
- Three hazardous waste shipments have been made in FY2004. One more shipment will be made in August.
- The 2003 Annual Site Environmental Report is waiting review before sending to DOE-CH.
- Hanford personnel are tentatively scheduled to be onsite to verify the Laboratory's LLW. The Laboratory may not be able to ship due to DOE's recent ROD.
- Work towards incorporating EMS criteria into the Laboratory's ISMS continued with the development of an EMS awareness training module. The Laboratory's Policy statement was also up-dated to include language required under ISO14001: 1996 for EMS. Both will be implemented when the EMS is fully integrated into ISMS, which is planned for December 31, 2004.

Review waste generation types, including any mitigating factors: The following summary information characterizes the Ames Laboratory Waste Management activities.

- RCRA waste volumes, thus far, have increased to 2,842 kg as compared to 2,628 kg in FY2003. Increase is due to cleaning out laboratories and solvent usage.

Review results of Ames Laboratory Assessments relating to waste management:

Two topical appraisals are scheduled to be completed this year (see section 2.2.1). Also, the Laboratory will collect used oil filters and send to ISU for recycling rather than putting them in the trash.

Review effectiveness of Pollution Prevention/Waste Minimization Program:

- The Laboratory continues to recycle as much as feasible. Scrap metal, white paper, CRT's, used oil, Styrofoam peanuts, phonebooks, and batteries continue to be collected for recycling.
- Employees are encouraged to buy recycled content products (i.e. toner and paper).

Additional ES&H Efforts

The Event Reporting Program plan and related documents were completely rewritten, reviewed and signed as of May 1, 2004. This effort was in response to an Ames Site Office review of the PAAA reporting process at Ames. The significantly enhanced aspects of the program are the screening process and the causal analysis process. Although process guidance has been

written and responsibilities assigned, a training effort must be made and process experience must be gained before the most benefit will be derived from the program changes.

In May 2004, the Ames Site Office, with assistance from DOE-CH STS, conducted an ISMS assessment. The process focused on specific activities and was quite enlightening to all participants. The strengths of the Ames ISMS program elements were clearly evident and some opportunities for improvement were identified. All opportunities are either completed or in the process of being addressed.

Self-Assessment Effort to Date

None.

STRATEGIC GUIDANCE, OVERSIGHT AND MANAGEMENT

OBJECTIVE 3.0: ISU proactively works with Ames Laboratory Senior Management to grow the Laboratory and strengthen its core competencies.

MEASURE 3.1: Consistent with the DOE mission, ISU provides effective strategic guidance and support for Ames Laboratory's science programs and operations strengthening core competencies and growing the Laboratory into the future, prevents or promptly resolves issues and problems, and enhances the overall quality of the Laboratory.

EXPECTATION 3.1:

1. ISU and Ames Laboratory's Senior Leadership lead the annual institutional planning process for the Laboratory.
2. ISU and Ames Laboratory's Senior Leadership continue to develop and promote the initiatives presented at the On-Site Review in 2003 and continue to look for additional opportunities to grow.
3. During the performance period ISU Senior Leadership will work with DOE to resolve strategic issues that impact the overall performance of the Laboratory, if any.
4. The Laboratory Directory will work with the University President and the Provost to identify openings that could be filled with split-appointees that would help grow the Laboratory and enhance core competencies, while supporting the mission of both institutions.

MEASURE 3.2: ISU will participate in reviews of selected Laboratory science programs, ES&H systems and key business management systems to feed the development of strategic guidance, refine performance measures and assist with enhancing and improving the Laboratory's core competencies.

EXPECTATION 3.2:

1. ISU's Institute for Physical Research and Technology (IPRT) Industrial Advisory Board will meet semi-annually with the Laboratory Director to receive updates on the science operations of the Laboratory. Suggestions and comments from the Industrial Advisory Board will be reviewed and addressed by the next meeting.
2. ISU will provide for the review of selected Laboratory business management systems and will participate in peer reviews of scientific programs.

ASSUMPTIONS:

1. ISU will ensure that self-assessments of the Laboratory's mid-year and end-of-year operational performance are completed.
2. The Laboratory will develop and implement plans appropriate to addressing improvement opportunities or issues identified in the self-assessment or through peer reviews of scientific programs or reviews of the Laboratory's business system.
3. In the self-assessment, examples will be provided by ISU and Laboratory Management as evidence of success in meeting the established Expectations for Strategic Guidance and Contractor Management.

PERFORMANCE RATING:

The performance rating for Strategic Guidance and Contractor Management will be determined as follows:

Performance Level	No. of requirements met
Outstanding	6 Expectations achieved
Excellent	5 Expectations achieved
Good	4 Expectations achieved
Marginal	3 Expectations achieved
Unsatisfactory	Less than 3 Expectations achieved

WEIGHT 3.1 & 3.2: 10%

MIDYEAR RESULTS:

Expectation 3.1:

1. The 2004 Institutional On-Site Planning meeting occurred June 14, 2004. By all accounts from the Directorate, this was one of the most productive and beneficial planning meetings the Laboratory has participated in for a number of years. This year's planning meeting focused on the vision for the Laboratory for the next 20 years. It included discussions of core programs, opportunities for new research, new initiatives and paths forward. ISU Senior Leadership participated in various aspects of the planning meeting including interactions between Dr. Orbach and President Geoffry, Provost Allen and Vice-President Madden as well as in-depth scientific discussions between Dr. Orbach, Dr. Dehmer and various ISU departmental heads and staff members. Laboratory Senior Leadership did most of the topical planning for the meeting along with providing Dr. Orbach, Dr. Dehmer, Ms. Purucker and other DOE guests with reviews of both scientific and operational information.
2. During the 2003 On-Site Review, several new initiatives were presented to DOE leadership. Since that time Laboratory staff have continued to develop the new ideas into initiatives that will best support DOE's mission. At the 2004 On-Site meeting several of these initiatives were discussed between DOE and the Laboratory. Feedback was given by Dr. Dehmer to aid the Laboratory in determining its path forward on these initiatives. Feedback varied from high encouragement to little interest. Even so, the feedback was important so that we can focus on DOE's needs and not waste time on initiatives of little use. In some cases DOE has asked for smaller scale proposals to help get started in setting up a research effort in the proposed area of research. The Laboratory has submitted two formal proposals and is waiting on word regarding funding. The Laboratory is also reworking some of the ideas so a formal proposal is yet to come.
3. In the past, the Laboratory worked with DOE and ISU to correct various management or operational issues that arose. The Laboratory is currently working on a few "to-do" items that arose out of the On-Site meeting but the biggest strategic issue that is being worked on currently is the development of the new initiatives. These initiatives are important for the Laboratory's future and their success could have a huge impact on the mission of DOE. The initiative on Bio and Bioinspired Materials is important enough that Dr. Dehmer has encouraged us to work with her office in developing the Laboratory's proposal. This initiative is one that both the DOE and the University are very excited about and it has the support of all parties involved.
4. The Laboratory has been fortunate in that there has been a lot of activity in searching for top-level scientists to fill open positions. In many cases, these scientists will be covered by university resources for the academic year and covered by Laboratory resources for the summer months. The Laboratory's Condensed Matter Physics group was very

excited about an offer that was pending in May to a scientist from Germany. Unfortunately, when the German government learned of the offer they countered with an offer that the scientist could not refuse. Even though we eventually lost that chance to hire a world-class scientist the fact that the Laboratory was even considered had to do with the relationship that exists between the university and the Laboratory and the support that is given out of the university President's Office for the sharing of faculty with the Laboratory.

Expectation 3.2:

1. The IPRT Industrial Advisory Board met in the Spring and Dr. Barton provided the group with an update of events and developments at the Laboratory. The suggestions and comments that were provided by the board were directed to IPRT in general and not to the Laboratory specifically. Therefore no follow-up is needed.
2. Reviews of business managements systems for CY2004 included the Procurement Office and will included the Information Systems. The review of the Procurement Office had no findings and only a few opportunities for improvement. The Information Systems peer review will focus on various cyber security issues. In a related matter involving business management systems, the Laboratory met with the ISU Administrative Information Technology Office to gather advice on the preparation of our RFP for new business software. AIT is planning on participating in the vendor demonstrations, as they have time, to observe the process and give us advice if they feel we need it. Other areas of involvement of ISU in operational reviews include participation in a DOE-IG review of royalty and licensing income for the Laboratory and an internal review of the radiation protection program that is required on an annual basis. ISU is very active in the scientific peer reviews in that many of the Laboratory's scientists are also either staff members or departments officers at the university. Feedback received from peer review participants has a direct flow to the various physical sciences departments and the actions of the Laboratory have to be coordinated with ISU.

Systems Assessment (General Operations)

SCIENCE

System Indicators:

None.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE Orders.

Midyear Report:

Productivity results will be reported in the Annual Report.

FINANCIAL

System Indicators:

OBJECTIVE 1.0: Control uncosted balances.

MEASURE 1.1: Percentage of uncosted balances to total available to cost (TAC).

EXPECTATION 1.1: Uncosted balances to be maintained at levels needed to ensure continuity of operations as follows unless properly explained:

	Within acceptable range	Unacceptable range
Operating	<13% of TAC	≥13% of TAC
Capital Equipment	<50% of TAC	≥50% of TAC

NOTE: Only uncosted balances that exceeded $1M at the four-digit B&R level will be included in this evaluation.

OBJECTIVE 2.0: Effective and efficient cash management for Work for Others (WFO).

MEASURE 2.1: Contractor billings should conform to signed WFO agreements in that total billings should not exceed agreement amounts, funding expiration dates should be observed, and closeouts should be initiated promptly upon completion of work.

EXPECTATION 2.1: Zero billing errors on non-ISU invoices.

MIDYEAR RESULTS:
Expectation 1.1: This is a year-end calculation and will not be addressed at this time.

Expectation 2.1: To date there have been no billing errors on non-ISU invoices.

Compliance Items:

Contractor's cost accounting system is in compliance with CAS.

Contractor is responsible for review of unallowable cost pursuant to the Cooperative Audit Strategy.

Contractor is required to adhere to the rules regarding related party transactions as indicated in the Final Agreement on Guiding Principles dated April 15, 1997.

Midyear Report:
Critical Items

None

Significant Changes

There have been no significant changes to date.

Self-Assessment Effort to Date

The Internal Audit function at Ames Laboratory annually conducts an audit to sample costs incurred and addresses the aforementioned compliance items within this audit. In the most recent audit, released April, 2004, transactions totaling $ 2,454,535 in costs were tested for compliance to costing standards, for allowability and for adherence to rules regarding related party transactions, as indicated in the guiding principles. The sample reviewed was 49% of the total dollar value of the population of $5,019,556. This population was defined as purchase orders completed within Fiscal 2003, with a count of 3153 purchase orders completed. *The audit found no issues of non-compliance relative to costing systems and related CAS and the Disclosure Statement. In addition, all costs reviewed were allowable; adherence to the rules regarding related party transactions as indicated in the guiding principles was also noted from transactions reviewed*.

In addition to the testing of transactions on costs incurred, any substantive changes to control systems in the interim from the prior year's audit are reviewed and relevant procedural tests considered to determine if changes have adequate controls within them and are working as intended by management. Within additional auditable units at Ames Laboratory, risks as relevant to the unit under review are considered, as associated with these compliance items. If relevant, audit procedures are developed to address the specific issues considered.

Other Information - Internal Audit

In conducting the performance self-assessment of the Audit activity, the following information and/or outcomes were noted in the past year:

The Office of Inspector General, through the cooperative audit strategy, placed continued reliance upon the Internal Audit function. The Cooperative Audit Strategy was initiated in 1992 as a strategy to optimize audit resources within the DOE audit community such that contractor internal audit functions partner with the OIG audit function to realize a synergy in deployment of audit resources throughout the DOE complex.

Other outcomes of the internal audit process included:

- Improved accountability of materials as associated with cave inventories, relative to the Radiation Protection Program at Ames Laboratory. The audit report served as a catalyst for the articulation of a disposition path and disposal of various radiation materials left from legacy activities.
- Continuing monitoring and assessment of the adequacy and effectiveness of management controls within the credit card procurement system at Ames Laboratory.
- Assessment of the adequacy and effectiveness of management controls within the space management system at Ames Laboratory. Appropriate dollar corrections were made in the settlements from the result of the audit; also control techniques used in the process were critiqued to provide a basis for process improvement.
- Assessment of the adequacy and effectiveness of management controls within selected benefit programs for the Laboratory with the addition of control checks on vacation payment participations by the contractor and Ames Laboratory for those retiring and/or leaving the employ of the Laboratory.
- Review of the settlement account process with the Contractor that takes place on a monthly basis and verification of reconciling items. Also, this audit catalyzed for changes in the supervisory review process of the settlement to the University.
- Follow up and assessment of the adequacy of corrective actions taken by managers with respect to audit findings on prior audit work.
- Review of physical inventories of assets to ascertain that the adjustments made to the book inventories (financial statements) are appropriate, supported by evidence and reasonable in nature.

Also, the following audit reports have been issued to date within CY2004 as of mid-year (circa July 13, 2004):

- Internal Audit Report- Audit of Travel Expenses: Domestic, Other and Training Expenses (Issued January 12, 2004)
- Internal Audit Report- Interview and Relocation Expenses (Issued February 18, 2004)
- Internal Audit Report- Review of Management Controls to Preclude Incurring Unallowable Costs, Fiscal 2003 (Issued April 28, 2004)
- Internal Audit Report- Property Management Review (Issued June 18, 2004)

2003 Areas of Concern:

One area of concern listed in last year's report is the discontinuation of support for the operating system on the Laboratory's mini-computer and the need to move to another hardware platform. Over the last six months the Laboratory has spent a significant amount of time defining its business requirements and issuing an RFP for a new business system. The RFP responses were submitted last week and various teams are in the process of reviewing the submissions.

Topical Areas:

Travel Management: The overall travel target for the Laboratory was lowered by DOE from the requested amount of $650,000 to $600,000. The approved amount was allocated to the various program and support groups for use. Through the end of June the Laboratory had used approximately 55% of the allocated target with 25% of the year to go. Summer is usually a higher travel period for the scientists so we will keep an eye on the completed travel authorizations to make sure we stay under our target. Travel to date is a little lower than last year and has been impacted by the delay in receiving an approved budget from Congress.

No other topical areas were included in the 2004 self-assessment criteria.

DIVERSITY

System Indicators:

OBJECTIVE 1.0: Strengthen commitment and accountability to Equal Employment Opportunity and affirmative action and maintain a diverse workforce.

MEASURE 1.1: Maintains a systematic approach to the recruiting and retention of new talent from diverse populations and continual attention to training and self-renewal.

EXPECTATION 1.1: Increase or maintain workforce diversity compared to prior fiscal year.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE Orders.

Midyear Report:
Critical Items

None.

Significant Changes

There will be a new Human Resources Manager in position by August, 2004. That individual will need to work with DOE-CH to understand and address the self-assessment requirements in this area.

Self-Assessment Effort to Date

The Laboratory has had only one position vacancy in the scientific area at the PI track level thus far this year. The recruitment for that position has concluded and did include the job vacancy being distributed to the vast number of institutions that have been identified as potentially providing minority candidates for the pool. The final selection for the position was a non-minority.

Topical Areas:

The Laboratory continues to be an integral player in the University's diversity efforts. Our workforce holds a strong intellectual and disciplinary mix of academic positions in the research environment, i.e. undergraduate students, master's degree candidates, doctorate degree candidates, postdoctoral employees, and all levels of professorial rank. In addition, there are over 40 countries represented in our workforce with non-U.S. citizens accounting for nearly 35% of the population. These statistics alone speak for a strong platform on which the Laboratory melds with the University's definition of diversity. ISU defines diversity as that quality of its physical, social, cultural and intellectual environment, which embraces the rich differences within the multiplicity of human expression and characteristics including age, culture, ethnicity, gender identification and presentation, language and linguistic ability, physical ability and quality, race, religion, sexual orientation, and socioeconomic status.

PROCUREMENT

System Indicators:

OBJECTIVE 1.0: Ensure that the contractor has an effective procurement management system that ensures quality goods and services are obtained at reasonable prices, in a timely fashion, and in accordance with the statutory and regulatory requirements and programmatic needs of the agency.

MEASURE 1.1: Perform Balanced Scorecard evaluation in accordance with the FY2004 Balanced Scorecard Plan.

EXPECTATION 1.1:

Outstanding	>12
Excellent	11-12
Good	9-10
Marginal	7-8
Unsatisfactory	<7

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:
Critical Items

There are no critical items.

Significant Changes

There are no significant items.

Self-Assessment Effort to Date

Most of the performance measures in CY2004 plan are statistical in nature. In order to have any meaning, a full year's worth of data must be accumulated. The Laboratory received an on-site PERT review on April 14, 2004, and there were no observations of a significant nature in the final report. In general, all assessments are proceeding according to plan.

Make or Buy Process

As in the past several years, small make-or-buy decisions continue to affect activities at the Laboratory. In the Materials Preparation Center (MPC) last year, we decided to close our analytical shop and send samples to outside vendors for analysis. This continues to be done fairly smoothly. The Laboratory also decided to contract with a vendor to cut out drain lines for some D&D activities. This Spring the Laboratory continued this activity on some other clean-up work with the same level of satisfaction.

In addition to the above, the process of moving the Laboratory's business systems off of the HP3000 is requiring a constant review and analysis to determine what software packages to write and which ones to buy. The Laboratory issued an RFP and is awaiting vendor responses

to see which of our business functions can be met by vendor software and which will have to be created internally. This process will end in a series of make-or-buy decisions. Even for the systems that we create in-house, we will need to decide whether to have a vendor that specializes in code conversion migrate our Cobol programs or whether to rewrite the programs with the specifications that we listed in the RFP.

Another related make-or-buy decision the Laboratory made related to the RFP process itself. The migration process is so big and so critical to our future that we decided to utilize the services of a software acquisition consultant to help us develop the RFP, administer the RFP process, negotiate the final agreement and write the scope of work. This consultant has worked with a number of the software vendors and has found additional vendors who may be qualified to work on this project.

We are trying to identify COTS (commercial off-the-shelf) software that is affordable and will do what we need done. Our existing general ledger package and two peripheral modules are COTS and can be converted. We are trying to explore all the options before we move forward with a conversion. The biggest issue is the number of legacy systems we have that are internally written. These will be the primary focus of our make-or-buy decisions.

TRAINING

System Indicators:

OBJECTIVE 1.0: The contractor shall identify each individual's mandatory retraining needs and shall verify module completion to ensure work is performed safely and effectively.

MEASURE 1.1: On a calendar year basis, the following performance levels will be applied to the percentage of active employees Laboratory wide who have completed their identified mandatory.

EXPECTATION 1.1:

Outstanding	>95%
Excellent	90-95%
Good	85-89%
Marginal	80-84%
Unsatisfactory	< 80%

MIDYEAR RESULTS: The midyear review of modules with an associated retrain period appears favorable and all completion rates for retraining will exceed 86% at year-end.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:
Critical Items

The Ames Laboratory's Information Systems Department will be converting all Laboratory databases from the HP3000 to a new system. The Ames Laboratory Training Records System (ALTRS) is one of the databases to be converted within the next couple of years. This will require a significant amount of time by the Training Coordinator to prepare the vendor requirement document, review the vendor's proposal, and assist during the conversion and testing phases of the project.

Significant Changes and On-going Activities from January 2004 through June 2004

Computer Based Training Modules:

- The Training Office's Program Assistant has begun work on preparing the script for the Hazardous Waste Generator Training (AL-073).

- The Industrial Hygiene Specialist prepared a major revision for the Chemical Hazard Communication Training (AL-137), the Bloodborne Pathogen Exposure Control Plan Training (AL-035) and the Integrated Safety Management System Training (AL-143).

Class Room Training Modules:

- The Fire Protection Specialist made a major revision to the Welding Safety and Hotwork Training (AL-149) and a Hotwork Permit Authorization Module was developed and will be implemented in 2004.

- The Electrical Safety Committee prepared updates for the LOTO Training (AL-012), Basic Electrical Safety Training (Al-019) and High Voltage Electrical Safety Training (AL-020).

- The Training Coordinator updated the General Employee Training Module (AL-001) to enhance the Safeguards and Security section and this module is currently being reformatted in its entirety to enhance all the information presented.

- The Industrial Safety Specialist developed a new Personal Protective Training Module for the Facilities Services Department and prepared a major revision to the Fall Protection Training (AL-144).

- The Environmental Specialist updated Hazardous Waste Generator Training (AL-073).

- The Industrial Hygiene Specialist updated the Chemical Hazard Communication Training (AL-137) classroom module and is currently working on creating a Back Safety Training module.

Training - Programming Changes:

- Working on a "Communications Project" with the Information Systems Department to establish email addresses for all employees and set up training report queries to provide email addresses as an output option to reduce paper use, e.g., training announcements, reminders, etc.

- Continuing with programming plans to institute the off-site status designation for Associates of the Laboratory.

- Prepared a Requirement Document for the Ames Laboratory Training Records System (ALTRS) Database, which will be utilized for vendor proposals.

- Drafted a planning document to allow for the programming of an automated Training Cost Report.

Other Training Actions:

- Submitted a Service Order Requisition to begin the installation of a ceiling mounted LCD projector and speaker system in the Laboratory's Training Room. To date, the Training Room layout has been drafted and the needed equipment has been ordered.

- Updated the Hazard Inventory and Job Task Analysis (HI/JTA) Packet and updated several items on the Training Needs Questionnaire. Prepared and distributed a "Master" HI/JTA to all Program Directors/Department Managers, Group Leaders, and Program Assistants.

- Prepared and distributed the annual Employee Training Profiles/Training Action Plans for all Ames Laboratory/IPRT employees, processed Training Statistics, updated ADS and the generated the Annual Training Cost Report for DOE.

- Performed retrain quality checks on Radiological Program modules to ensure compliance.

- Sent several Emergency Awareness mass mailings to Safety Coordinators to ensure that Emergency Awareness Training Forms (AL-002) were completed by members of their Program/Department. Multiple Training Need Questionnaire (AL-000) mass mailings were sent out to supervisors to ensure that their employee's had completed this information.

Self-Assessment Effort to Date

During the rest of the year, the Ames Laboratory Training Office will concentrate on the conversion project for the Ames Laboratory Training Records System. A concerted effort will be made to develop additional computer based training modules to provide alternatives to the traditional class room training in order to accommodate our employees busy work schedules. In addition, enhancements to our training reporting abilities will be instituted. The Training Office staff is customer focused and works closely with employees and their supervisors to ensure their work activities are appropriately identified, which allows training requirements to be managed effectively.

SCIENTIFIC AND TECHNICAL INFORMATION

System Indicators:

OBJECTIVE 1.0: 100% of Ames Laboratory's unlimited-distribution technical reports are publicly available on the DOE Office of Scientific and Technical Information (OSTI) web-based InfoBridge.

MEASURE 1.1: Percentage of unlimited-distribution technical reports, which are issued during the Fiscal Year, and are available to DOE-OSTI in full-text electronic form within 15 days of publication.

EXPECTATION 1.1:

Performance Level	Performance Expectation
Outstanding	≥90%
Excellent	≥80%
Good	≥70%
Marginal	≥60%
Unsatisfactory	<60

MIDYEAR RESULTS: The STI Program continues to meet the performance measure of sending unlimited-distribution technical reports (i.e., Announcement Records and PDFs) to OSTI within three weeks of receiving the publication reprint.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:
Critical Items

The Ames Laboratory's Information Systems Department will be converting all Laboratory databases from the HP3000 to a new system. The Ames Laboratory Scientific and Technical Information Database is one of the databases to be converted within the next couple of years. This will require a significant amount of time by the STI Manager and Program Assistant to prepare the vendor requirement document, review the vendor's proposal, and assist during the conversion and testing phases of the project.

Significant Changes

- Provided the Laboratory Information Systems Department with a requirements document for the STI Database, which was distributed for vendor proposals.
- Reviewed vendor proposals and scored responses with an appointed team to provide feedback in the vendor selection process.
- STI Manager attended the annual STI Conference to obtain information on the Harvesting, Electronic Submissions and Legacy Initiatives.

- Prepared STI Desk Manual for all STI work activities in preparation of training a temporary staff member.

- Information Systems ran a query on all STI Indexing Numbers used to date. The report will be used to map information prior to working with OSTI on the implementation of the Harvesting Initiative.

Self-Assessment Effort to Date

The primary effort in the STI Program has been incorporating all programming needs into the existing STI Database to ensure that all data is converted and all features are incorporated into the new database system. Also, a plan will be drafted to outline incorporating an electronic submission process module as a facet of the new database. The STI Manager will work with the selected vendor to integrate a web interface for the newly designed system.

Another area of interest will be performing the base planning needed to implement the harvesting initiative by calendar year-end 2005. This includes formatting a web page for harvesting and preparing a mapping plan of STI meta-data.

The STI Office is facing numerous changes in the coming year; however, a concerted effort will be made to continually focus on the day-to-day activities of servicing our customers, managing our technical information, and meeting our OSTI submission performance measure.

INFORMATION MANAGEMENT

System Indicators:

OBJECTIVE 1.0: To manage information resources on a corporate basis using sound business practices to improve the quality and cost-effectiveness of business and administrative systems and work processes.

MEASURE 1.1: Evaluation of evidence that IM plans link IM investments to Laboratory needs.

EXPECTATION 1.1: Objective evidence has been provided to demonstrate that IM activities provide effective support for the Laboratory's operations.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:
Critical Items

The critical issue that IS and all administrative offices are dealing with is the conversion off the HP3000. This project is highlighted in the section titled, "Self-Assessment Effort on IM Plan Projects".

Significant Changes

None

Self-Assessment Effort to Date

- Review and update the accrued vacation system.
  There are two pieces to the accrued vacation system:
  1. The accrued vacation liability report that usually runs in the summer, and
  2. The monthly accrued vacation process and reporting.

  Both pieces need modification.

  Currently, there are calculation errors in the accrued vacation liability (summer) report on people who are semi-retired, work less than full-time, have multiple assignments or have adjustments to their employment status in July - September. Changes have been made to the program to correct the miscalculations and a parallel system will be running mid-July to verify that the changes are correct.

  In the monthly accrued vacation process a field was added to a database table to capture the hourly rate at the end of the month for all employees. This field will provide a correct hourly rate for all staff regardless of their employment status (full-time, part-time, semi-retired).

- Make appropriate programming changes to accommodate I-MANAGE.
  The programming has been completed to create the balanced file for testing the I-MANAGE system. The latest I-MANAGE documentation indicates a second level of edits will be needed. These edits are in process and are not complete.

- Evaluate and implement options for retrieving and populating July 1 assignments.
  At least three options were discussed for changing the current procedure for retrieving and populating July 1 assignments. The decision was made to continue the current process and no programming changes will need to be made.

- Develop Foreign Visits and Assignments system.
  A program was developed to display all active employees' citizenship/Visa/Passport data along with basic HR (name, address, hire date) and employee assignment data. A monthly report was developed to print active foreign nationals data formatted for various staff tracking Foreign Nationals. Another report was developed to list changes to basic HR data (name, address, phone) and changes to specific fields such as passport and visa information that occurs with foreign nationals.

  The Foreign Visits and Assignment database system used for tracking foreign visitors completing the Form AL 473 Foreign Visits or Assignments Request Form (AL 473 Form) was reviewed. It would be beneficial to route the AL473 Form for approval. The IS programming staff is in the process of developing a forms routing system for routing various types of business forms. Once the forms routing system is completed an AL473 Form would be developed for use with the forms routing system.

- Continue evaluating financial applications for the HP3000 conversion.
- Decide hardware/software purchases for HP3000 conversion.
  These two items will be discussed in the "Self Assessment Effort on IM Plan Projects".

- Upgrade email system.
- Split e-mail server into e-mail MTA and e-mail mailbox components.
  The Server Team met in January and June to discuss email upgrade options. The plan is to split the Message Transport (outside) functionality from the Mailboxes (inside) and place each function on a separate server. The following email software will be evaluated: PMDF, Postfix, Courier IMAP, Netmail. In addition, four anti-spam software packages will be evaluated. At this time, we may not have the labor resources to complete the software evaluation and make our final purchase decision by the end of the calendar year.

- Create disaster recovery CDs for each server for use with new Tivoli backup system.
  This project is scheduled for completion in December 2004.

- Explore migration paths for current RH (Red Hat) Linux servers.
  The Server Team met in January and June to discuss Linux migration path options. Debian, RH Enterprise, Suse and Fedora are being evaluated for the servers and Suse and Fedora on the desktops. Our plan is to make a final decision by the end of the calendar year.

- Develop automated vacation response.
  This project is complete.

- Develop user forum for desktop support calls.
  Part of this project involves enhancing our internal web site to more easily locate documents. The user forum for desktop support calls will provide a central location for distributing desktop knowledge to clients. The planned completion date is December 31, 2004.

- Upgrade Netware to version 6.5.
  The upgrade of the central file/print server to Netware 6.5 will occur in July 2004. The upgrade of one research program's file/print Netware server will occur by December 2004.

- Upgrade Groupwise.
  The Groupwise upgrade is expected to be completed one month after the purchase of the software. The software is expected to be purchase by September 2004.

Self Assessment Effort on IM Plans

Project 1: HP3000 Conversion

- Continue evaluating financial applications for the HP3000 conversion.
- Decide hardware/software purchases for HP3000 conversion.

The Ames Laboratory support areas prepared a detailed RFP (Request for Proposal) listing all the system requirements for all applications that currently operate on the HP3000 and administrative applications that currently are housed in stand-alone databases. The requirements documents incorporated all current and desired functionality into the RFP. The Laboratory hired a consultant to assist in the preparation of the detailed RFP. The RFP was released in May 2004 to twenty vendors. The response date for returning the RFP was July 6, 2004. Ames Laboratory staff is in the process of reviewing and evaluating the RFPs.

Project 2: Router upgrade

Phase 1.

1. Implement and configure NetReg.

Ames Laboratory Network Infrastructure (NI) staff plan to have the implementation and configuration of NetReg completed by September 1, 2004.

2. DHCP.

After October 1, 2004, NI staff will deploy DHCP to all individuals requesting a new IP address. NI and Desktop staff will deploy DHCP to the Laboratory research and support areas in groups. Instructions will be provided to the Assistant Computer Protection Manager (ACPM) in each research program to facilitate the implementation of DHCP. Completion of this step is planned for December 31, 2004.

3. Routing.

Four vendors have been selected for evaluation of their routing devices. Vendors will be asked to demonstrate the routing device and provide documentation on their products. The planned completion date for the vendor evaluation is December 31, 2004.

SAFEGUARDS AND SECURITY

System Indicators:

OBJECTIVE 1.0: A safeguards and security program shall be implemented that ensures compliance and performance with safeguards and security requirements and development of an Integrated Safeguards and Security Management (ISSM) System.

MEASURE 1.1: The Site Security Plan is in place that addresses applicable topical areas of the Safeguards and Security Program.

EXPECTATION 1.1: Self-assessment documentation reflects how safeguards and security program elements were evaluated and provides the basis for the evaluation.

Corrective actions or compensatory measures for deficiencies which involve nuclear materials or security interests at risk are implemented immediately.

Corrective actions are monitored until resolved.

MIDYEAR RESULTS: Ames Laboratory issued an updated Site Security Plan in September, after the 2003 Safeguards and Security Inspection of August 13-14. The revision addressed a suggestion related to Foreign Visits and Assignments General Security Plan.

The Ames Laboratory Corrective Action Tracking System (ALCATS) is utilized to track S&S corrective actions. All corrective actions have been addressed except compliance with DOE N 205.2 (DOE N 205.2 is not in the Ames Laboratory Contract). The Cyber Security Review of May 2004 indicated that DOE N 205.2 would be added to the Ames Laboratory contract with the next contract modification. Efforts are underway to address the requirements of this directive.

MEASURE 1.2: Vulnerability Assessments accurately address current Laboratory operations.

EXPECTATION 1.2: The assumptions made in vulnerability analyses are accurate and applicable.

MIDYEAR RESULTS: In 1991, the Ames Laboratory conducted a Vulnerability Assessment (VA). The format used data collected from the groups and departments within Ames Laboratory to assess the value and importance of real and personal property at the site. The same concept was used to revisit the subject in 1999, although the form was altered to allow database entry and additional data regarding flammable fuel loading. Several additional door sensors were installed as a result of the VA.

In 2002, the Ames Laboratory received information from the Story County Emergency Management Agency regarding a 2001 U. S. Department of Justice threat assessment made of Story County. When additional information becomes available, it will be used for future updates of the Laboratory vulnerability assessment.

EXPECTATION 1.3: The Laboratory has developed an implementation plan based on the Design Basis Threat memorandum, dated May 20, 2003.

MIDYEAR RESULTS: An unclassified version of the DOE Design Basis Threat (DBT) Policy was transmitted to Ames Laboratory for review and comment. Upon review, Ames determined that the new DBT will have no impact on the Laboratory and that an implementation plan is unnecessary. A formal response was transmitted to DOE-CH on December 3, 2003. It indicated that members of the Laboratory's Safeguard and Security Program reviewed the referenced Design Basis Threat (DBT) policy with the understanding that the DBT Policy is related to DOE assets, of which Ames does not have nuclear weapons, nuclear weapon components, chemical weapons, chemical and biological agents retained in compliance with U.S. policy and treaty regulation, nor classified matter and information. Ames does have DOE facilities, property, and a limited amount of Special Nuclear Material (SNM), but also, Ames has an outstanding record of protection of DOE facilities, materials and property, as well as sensitive information.

According to the DBT Policy's graded threat concept, Ames is appropriately defined as Threat Level 4 (TL 4): Theft, Disruption of Mission and Espionage, due to Category IV quantities of SNM. The Sabotage Threat Level 4 (STL4): Radiological and Biological Sabotage is applicable to Ames, based on limited potential radiological dose levels and Biosafety Level 1 laboratories. Also, Ames' Chemical Sabotage Level is appropriately addressed by industry standards associated with industrial chemicals.

Based on these facts and the review discussions of the policy, it is Ames Laboratory's determination that the new DBT will have no impact on the Laboratory and that an implementation plan is unnecessary.

MEASURE 1.3: The Laboratory maintains a Nuclear Materials Accounting System which reflects nuclear material activity, including physical inventory results and reconciliation.

EXPECTATION 1.3: The nuclear material accounting system completely, promptly, and accurately documents activity in accordance with Generally Accepted Accounting Principals and DOE Orders.

MIDYEAR RESULTS: Ames Laboratory completed a physical inventory of nuclear materials in June 2004. There were no discrepancies noted during the inventory. The database that was recently developed allows for easy tracking and summation of inventory, allowing for straightforward accounting for material transfers and much easier quarterly report generation to required parties.

In the event that Ames Laboratory should pursue additional nuclear materials research in the future, an adequate accounting system is in place.

Ames Laboratory utilizes a Microsoft Access database to record and track radioactive materials inventory. The database has all MC&A materials entered. A very small amount of material, less than 1 kg, has been identified as necessary for future research activities. Ames is currently seeking permanent disposition of unneeded materials. All materials will be tracked on the database until they are properly disposed.

MEASURE 1.4: The Laboratory implements a graded ISSM system for the protection of DOE property and security interests.

EXPECTATION 1.4: The Laboratory effectively implements ISSM.

MIDYEAR RESULTS: Ames Laboratory utilizes an integrated approach to its management programs. Safeguards and Security Management processes are primarily defined as the

responsibilities of line management and specific support groups. As such, the S&S responsibilities are typically coordinated with other functional responsibilities, such as, safety, property management, personnel and project management, and information management. Ames prepared an ISSM description to serve as a road map to the processes and mechanisms utilized for protection of DOE property and security interests. This document was finalized and approved in 2004.

MEASURE 1.5: The Laboratory will maintain a graded nuclear material control program to ensure that: nuclear materials are in authorized locations with appropriate protection measures in place; unauthorized activities, material flows, and material transfers are detected; appropriate protective measures are in place for transfers of nuclear materials; and anomalies are reported, investigated and resolved.

EXPECTATION 1.5: The Laboratory's self-assessment will indicate effective implementation of this program.

MIDYEAR RESULTS: Ames Laboratory has plans to significantly decrease its nuclear materials inventory during CY2004. The bulk of the remaining materials are in Health Physics possession, kept in a locked and alarmed room with multiple key access limited to Health Physics staff. There is no research conducted with accountable quantities of nuclear source material at Ames Laboratory.

The opportunities for improvement noted during the 2003 review of the MC&A program have been implemented. All records are stored under the same security as the materials and all electronic copies of reports are stored on a secure server. Memos are also created each quarter to explain any changes that may take place in inventory and also to summarize the annual physical inventory process.

MEASURE 1.6: Incidents of Safeguards and Security concerns are detected, reported, investigated and resolved.

EXPECTATION 1.6: The Laboratory effectively implements this program. Concerns are accurately and completely detected, reported, investigated, and resolved.

MIDYEAR RESULTS: No significant incidents of security concern have been detected. Ames has incorporated the reporting of incidents of safeguards and security concerns into its Events Reporting Program.

MEASURE 1.7: The Ames Foreign Visits and Assignments implementation plan accurately addresses current policy and procedures.

EXPECTATION 1.7: Foreign Visits and Assignments program addresses policy and procedures required in the December 17, 2002, McSlarrow Memorandum.

MIDYEAR RESULTS: In response to Kyle McSlarrow's guidance, dated December 17, 2002, Ames Laboratory prepared a plan entitled, "Foreign Visits and Assignments Implementation Plan" (Plan number 50000.003). Ames has been following this plan since its effective date on February 1, 2003. As discussed in last year's self-assessment Yvonne Washington from the security group at DOE-CH came to Ames to perform a baseline study of our process and had a few suggestions for improvements that were implemented last year.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:
Critical Items

The 2003 Self-Assessment Report noted several opportunities for improvements planned for calendar year 2004. The status of these planned improvements are noted as follows:

- Ames Laboratory will further develop plans for disposal of remaining unutilized radiological materials.
  Status: *Plans and actions related to disposal are proceeding favorably. Year to date and planned actions include:*
  - *UF6 materials to be processed by Integrated Environmental Services at Brookhaven National Laboratory in August 2004.*
  - *UH3 to be transferred to Brookhaven National Laboratory, August 2004.*
  - *UF4 to be disposed at Hanford, August 2004*
  - *Chlorine and Fluorine contaminated Uranium to be disposed through Permafix, late CY2004.*

- It is anticipated that the IG report on deemed exports will have a few findings. During 2004, these findings will be addressed.
  Status: *Observation and Conclusion number 1 regarding adequate training of scientists will be addressed during the next six months. Additional information on hosting foreign nationals and export control will be included on the Laboratory's internal website. The Export Control Manager is in the process of developing this information along with the Laboratory's Counterintelligence Officer. In addition, a yearly retraining module or brochure on export control and hosting obligations will be developed. See the last page of this section for a discussion of Observation and Conclusion number 2.*

Significant Changes

Plant Protection Section has been working with DOE-CH on efforts to document a Training Action Plan (TAP).

In December 2003, the ESH&A manager and the ISU RSO conducted a review of the Laboratory's MC&A program. The review discovered no deficiencies of the program's design or implementation. Several suggested opportunities for improvement surfaced during discussions among the reviewers and the Laboratory's RSO. The actions completed include:

- The MC&A Program Plan has been updated and is current.
- Memos are now being created and are stored on a secure server along with the documents to which they pertain. These memos are filed with the documents in a secure location.
- Reminders have been entered into ALCATS and are being utilized for conducting CY2004 physical inventories and balance calibrations.
- A key has been encapsulated and given to the Ames Laboratory Plant Protection Section

Ames continues to improve the MC&A program through inventory reduction of unutilized materials. We currently have plans for disposal of all unutilized materials in CY2004. According to plans, all but 1.5 grams of special nuclear material (SNM) will be disposed of, along with

several kg of normal and depleted uranium in various forms. The Laboratory will then possess less than 1 kg of nuclear source material, including enriched, normal, and depleted Uranium and Thorium.

Ames has developed its badge making process into an in-house service to provide better customer service and implementation has progressed successfully.

Since the year-end self-assessment, Ames has received the IG report regarding deemed exports and the management of our foreign visits & assignment program. The IG reports that Ames should improve the training it provides for hosts of foreign visitors and needs to improve the review of export-controlled equipment uses in research. The IG also commented that the DOE needed to publish its revised Unclassified Foreign Visits and Assignments Order (DOE O 142.3) and provide better guidance on the topic of deemed exports.

Within the last month Ames received a copy of DOE O 142.3 and is working to use this order as a guide for improving training as required. DOE has planned a training meeting to be held later this summer at SLAC, which a Laboratory staff member will attend. Also, another staff member will receive FACTS training this summer in New Mexico.

After a complete review of the revised DOE O 142.3 and a comparison to the McSlarrow guidance, Ames will update local documents related to Foreign Visits and Assignments. Reviews by the Laboratory's Export Control Officer are utilized to identify potential Export Control considerations and sensitive activities. If a funded activity falls under the Export Administration Regulations, or under the DOE's sensitive subject list, it is added to the Laboratory's Sensitive Technologies list. The principal investigators and their program managers are sent letters informing them that the research is sensitive and that if at any time any foreign nationals will be working on the project, an Export Control Review must take place before hiring or assigning them to the project.

The IG performed a review of the export control program September 30 and October 1, 2003, specifically regarding deemed exports at Ames Laboratory. The objective was to review the Laboratory's management of deemed exports and the understanding of deemed export by management, researchers, and scientists in relation to funded projects at a University-contracted Laboratory. The final report was issued in April 2004. The observations and conclusions affecting Ames Laboratory were: 1) "Some hosts were not knowledgeable of their responsibilities regarding deemed export controls for foreign national visitors and assignees; and 2) Ames ...did not consider visual access to sensitive equipment or its use by foreign nationals, as required by Energy deemed export guidelines."" Ames took objection to the second observation and refuted the observation in Appendix B of the report.

The new draft of the DOE "Guidelines on Export Control and Nonproliferation" reaffirms that "they (the guidelines) do not apply to fundamental scientific and engineering research as defined in National Security Decision Directive (NSDD) 189." As the Laboratory does not perform classified research, and most, if not all, of the research done at Ames Laboratory is publicly disseminated, it is and has been our contention that the majority of the Laboratory's research falls under NSDD 189.

Self-Assessment Effort to Date

None

CYBER SECURITY

System Indicators:

OBJECTIVE 1.1: Continue to implement and improve a comprehensive cyber security program at Ames that is consistent with DOE directives and guidelines. This program provides appropriate protection for Ames Laboratory computer systems and data.

MEASURE 1.1: Minimize vulnerability of the Ames Laboratory computer network by ensuring secure system and network configuration and promptly correcting new vulnerabilities as they arise and are described in security advisories.

EXPECTATION 1.1: Establish and maintain a program of system and network configuration management for each defined system enclave.

Performance Level	Performance
Outstanding	In addition to below, configuration guidelines address all system environments present in each enclave and are updated to address security advisories.
Excellent	In addition to below, configuration guidelines address prevalent system environments in each defined cyber enclave.
Good	In addition to below, all cyber enclaves are defined.
Marginal	General Configuration guidelines are adopted and distributed to system administrators.

MIDYEAR RESULTS: The Ames Laboratory has one enclave/General Support System (GSS) and one major application covering Sensitive Systems in the research and support areas. The definitions for enclave (defined in the Office of Science Program Cyber Security Plan (PCSP)) and GSS ((defined in DOE O 205.1) appear to be synonymous. Configuration guidelines for the enclave have been developed for the following prevalent system environments: Windows 2000 and XP, MAC OS X, LINUX-Redhat 9 Fedora Core 1, and SUSE 9, Debian-Woody, and Generic LINUX, MAC OS X. The LINUX, MAC and Windows 2000 Baseline Security documents have been updated to include instructions on turning off services that are not needed. The performance level for expectation 1.1 is “Excellent”.

EXPECTATION 1.2: Perform quarterly network vulnerability scans on network systems that provide communications services visible to the public Internet community. Ensure that the identified high-risk vulnerabilities on high risk systems, as defined by the Ames Laboratory Risk Management Plan, are addressed through corrective action or document the reasons for accepting the risk. Justified exceptions are to be approved by the AMES Area Office. Systems identified as high risk with vulnerabilities of a high rating will be addressed within 30 business days of discovery and moderate vulnerabilities within 80 business days.

Performance Level	% Vulnerabilities addressed within schedule
Outstanding	97%-100%
Excellent	95%-96%
Good	90%-94%
Marginal	<90%

MIDYEAR RESULTS: Ames Laboratory network vulnerability scans of externally accessible computing systems were performed in February and April 2004. After conducting a Risk Assessment on all externally accessible computing systems, none of the systems are identified as High Risk.

Results from the scans with suggestions for addressing the identified vulnerabilities were sent to the system administrators who had externally accessible systems with high and medium vulnerabilities. The system administrators responded with corrective actions or justifiable exceptions to corrective actions. All externally accessible systems have an Overall risk assessment rating of low. Ames Laboratory midyear results for Expectation 1.2 warrant an "Outstanding" performance level rating.

EXPECTATION 1.3: Perform network vulnerability scans on the Ames Laboratory internal network systems so that 1/2 of the network scans are completed each year. Ensure that identified high and moderate vulnerabilities on identified critical and/or sensitive systems are addressed within 45 business days of discovery. Document the reasons for accepting the risk and identify the corrective measures taken that reduce the risk these systems have on the internal and external networks.

Performance Level	% Vulnerabilities addressed within schedule
Outstanding	96%-100%
Excellent	91%-95%
Good	85%-90%
Marginal	<85%

MIDYEAR RESULTS: The Ames Laboratory scans of internal computing systems were performed in March of 2004 for 25% of the laboratory's networked systems. The Ames Laboratory has no critical systems. Identified sensitive systems were scanned in April of 2004. One sensitive system with high and moderate vulnerabilities was identified. Information Systems provided assistance to the system administrator to address the vulnerabilities. Baseline Security Guidance was applied and Windows Update and virus scanning software was updated. The Ames Laboratory midyear results for expectation 1.3 are "Outstanding".

Compliance Items:

None.

Midyear Report:
Critical Items

The 2003 Self-Assessment Report noted several opportunities for improvements planned for 2004. These planned improvements and status are noted as follows:

- Complete Revision of CSPP.

Status: *A draft revision has been completed and is undergoing further additions as a result of issue of DOE Office of Science Program Cyber Security Plan (PCSP) dated 6-18-04.*

- Complete the certification and accreditation (C&A) process for the Ames Laboratory enclave.
  Status: *The C&A process is underway and work continues on writing Management, Operational, and Technical controls for the Enclave.*

- Continue to expand the VLAN technology to further segment network traffic and isolate administrative traffic from research traffic.
  Status: *VLANs have been added the Ames Laboratory network to isolate traffic from instrument control systems that cannot undergo operating system updates to address vulnerabilities.*

- Expand the installation of Thawte public key Certificates on external systems.
  Status: *Thawte public key Certificates on external systems are in use to further secure email systems and eliminate the transfer of passwords in clear text.*

- Complete Self Assessment based on NIST 800-26 and/or recommendations from DOE are underway.
  Status: *A Self Assessment based on NIST 800-26 and/or recommendations from DOE are underway.*

- Complete Control Analysis and baseline documentation for desktop devices.
  Status: *Baseline documentation for desktop devices most widely used at the Laboratory has been completed and made available to system administrators and end users. Work continues on expanding the covered operating systems and control analysis.*

- User education: Organize user-training modules for system administration on LINUX operating systems.
  Status: *System administrator training for LINUX operating systems has been made available though the contractor facility Iowa State University.*

- Conduct peer review for Cyber Security Program.
  Status: *A peer review has been scheduled with the National Renewable Energy Laboratory (NREL) with a tentative date of October, 2004.*

Significant Changes

In addition to the previous comments in the category of Critical Items, the following significant changes have been implemented.

- DOE-CH has given the Ames Laboratory an Interim Approval to Operate (IATO) its cyber systems as of June 10, 2004. The Cyber Security Review in May, 2004 found the Laboratory has implemented an effective Cyber Security Program.

- Baseline configuration documents are sent to all users of systems that request network addresses. After one week, a vulnerability scan is conducted to ensure the system is patched and no high/medium vulnerabilities exist.

Self-Assessment Effort to Date

The Cyber Security Program at Ames Laboratory has undergone reevaluation during 2004. Documentation has been prepared, reviewed and enhanced in fulfillment of government standards and DOE requirements. Ames continues to make updates to its Plan of Action and Milestones (POAMs). Vulnerabilities are identified and addressed according to a prioritized process. Additional efforts have been directed at the review of practices at other DOE Laboratories, in order to establish best applicable practices for Ames Laboratory.

COUNTERINTELLIGENCE

System Indicators:

OBJECTIVE 1.0: A counterintelligence (CI) program shall be implemented that ensures compliance with applicable CI requirements.

MEASURE 1.1: Percentage of Laboratory reports to the Office of Counterintelligence, Chicago Office or the local FBI any contacts or elicitation attempts with people of any nationality who seek sensitive unclassified information (e.g. proprietary or CRADA information) without proper authorization by any means. This includes any compromising situation or other inconsistencies associated with foreign travel or a visit or assignment.

EXPECTATION 1.1: The Laboratory shall meet this standard 100% of the time.

MEASURE 1.2: Percentage of employees that receive an annual Counterintelligence Briefing.

EXPECTATION 1.2: The Laboratory shall meet this standard 100% of the time.

MIDYEAR RESULTS:
Expectation 1.1: Through June 30, 2004 there were no reports to the Ames Laboratory POC of any contacts or elicitation attempts with people of any nationality who seek sensitive unclassified information without proper authorization. We have instructed our staff as to their responsibility to report such contacts. We have established the proper lines of communication in case such an event occurred but have not needed to utilize them.

Expectation 1.2: All employees on staff last December 2003 received the Annual Counterintelligence Briefing. New employees since that time have received their initial Counterintelligence Briefing as part of the General Employee Training. The Annual Counterintelligence Briefing is scheduled for retraining next November 2004. At any one time 100% of our employees will have received the Counterintelligence Briefing.

OBJECTIVE 2.0: Compliance with Department of Energy (DOE) requirements and responsibilities governing official foreign travel by contractor employees.

MEASURE 2.1: Post-travel trip reports for all official foreign travel submitted within 30 days after return to duty station.

EXPECTATION 2.1:

Performance Level	% of Reports Submitted in 30 days or less
Outstanding	≥90%
Excellent	≥80% < 90%
Good	≥70% < 80%
Marginal	≥60% < 70%
Unsatisfactory	<60%

MIDYEAR RESULTS:
Expectation 2.1: Trip report statistics are as follows:

Trips open from prior year	04
Trips requested	67

Trips cancelled	(03)
Total Trips	68
Trips still open or report not due	(25)
Total report due	42
Trips reports submitted within 30 days	33
% Submitted on time	79%
Rating:	Good

We anticipate being able to hold this rating or improve it to excellent during the remainder of the calendar year.

Compliance Items:

The Laboratory is currently following the McSlarrow guidance received in December 2002 for foreign visits and assignments and DOE O 5670.3 for its Counterintelligence Program. It is anticipated that the Laboratory will move to DOE O 142.3 sometime this fall. The Laboratory will participate in a implementation meeting regarding this order coming up this summer at SLAC.

Midyear Report:
Critical Items

None

Significant Changes

None

Self Assessment Effort to Date

The Counterintelligence program is currently in a steady state. The Laboratory staff continues to cooperate with Byron Eden, the Laboratory's CI Officer stationed at CH-CI. The staff also works with the local FBI office to answer questions regarding Laboratory research efforts and foreign visitors on site. In addition, we have been contacted by personnel from another government agency and have set up a protocol with agreement from CH-CI and local FBI for contacts from this additional agency.

The Laboratory is gearing up for the move to the new Unclassified Foreign Visits and Assignments Order, DOE O 142.3, which will help guide us to strengthen our FV&A program. During the first part of the year, an IG report was issued that stated that Ames needed to enhance its training for hosts of foreign visitors. The new order lays down the guidelines for host training that we will follow. Also we are planning on attending a meeting at SLAC hosted by DOE Office of Science S&S staff to aide in the implementation of the order. In addition, arrangements have been made to send one of our clerks to FACTS training to help educate him on the proper way to use FACTS.

The Laboratory is still dealing with the uncertainty of obtaining visas for foreign nationals. The longer lead times are a fact-of-life but occasionally there is a visitor whose visa is delayed for an extended period. This has an impact on the Laboratory's ability to support the mission of DOE and attain the goals set for Ames.

The foreign travel POC has worked hard this year to improve the foreign travel process. She is planning on attending DOE sponsored training that will keep her current on changes to the

FTMS system. She also has taken on the responsibility of reminding the travelers of their responsibility to submit a foreign trip report in a timely manner. Her efforts are the main reason for the improvement in our statistics for timely reports.

Dr. Barton received his clearance, so DOE CH-CI hosted a briefing at the FBI Offices in Des Moines. Don Krok, Byron Eden and Roxanne Purucker attended from CH, Tom Barton and Mark Murphy attended from the Laboratory and several FBI officials attended from both Des Moines and Omaha. The meeting focused on DOE, FBI and Laboratory interactions and was followed by a separate meeting between DOE and Laboratory officials to discuss DOE specific matters. This was the first opportunity for CH-CI to speak in detail to Dr. Barton on certain important matters.

HUMAN RESOURCES

System Indicators:

OBJECTIVE 1.0: Contractor will establish a systematic approach to its job evaluation system for exempt Professional and Scientific Classification system positions.

MEASURE 1.1: Percentage of Laboratory specific position descriptions which are analyzed to determine the appropriateness of the assigned classification.

EXPECTATION 1.1: Cumulative percentage of classifications reviewed and updated. (Baseline is to have every Laboratory specific description reviewed at least once every five years).

OBJECTIVE 2.0 Contractor maintains a systematic approach to its employee performance management system for Professional and Scientific staff.

MEASURE 2.1: Percentage of annual performance appraisals completed against pre-established job related performance criteria for the Professional and Scientific staff.

EXPECTATION 2.1: 100% of individual annual performance appraisals will be completed annually.

OBJECTIVE 3.0 Conduct a comprehensive review of the Recruitment Program.

MEASURE 3.1: Percentage of vacancies reviewed for appropriateness of knowledge, skill, and abilities to ensure/enhance the meeting of organizational goals.

EXPECTATION 3.1: Vacancy announcements adequately represent the needs of the Laboratory while providing a high quality and diverse candidate pool to the Selecting Official.

MEASURE 3.2: Assess Laboratory recruiting costs relative to University-Wide recruiting costs.

EXPECTATION 3.2: Result(s) showing recruiting costs at the Laboratory comparable to recruiting costs at Iowa State University

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:
Critical Items

No critical items to report in the Human Resources function at this time.

Significant Changes

A new performance objective has been added for the Human Resources function this year as the second year of a multi-year effort to review the efficiency and effectiveness of the various HR programs handled by this office. The function to be reviewed this year is the recruiting program.

Self-Assessment Effort to Date

Objective 1: We are in the fifth year of our plan that was developed to provide a systematic review of the classification of exempt, non-faculty scientific positions specific to the Laboratory as a measure to ensure appropriate application and administration of the job evaluation plan. The classification titles being reviewed in 2004 are: Scientist I & II, Director of Occupational Medicine, Manager Environmental Systems, Manager ES&H, Manager Facilities, Manager Engineering Services, and Supervisor Technical Services. A memorandum along with a copy of the current Position Information Questionnaire will be sent to the supervisor of each position in the above listed classifications. The supervisor and employee will be asked to review this description of the job and make any changes necessary to bring it up to date with regard to duties and responsibilities. HR will then review the updated version and determine whether or not changes to the position are significant enough to warrant a formal review of the job for reclassification. The year-end final report will provide the outcome of this performance objective.

Objective 2: Requests for annual performance appraisals of our Professional and Scientific employees were distributed in April with an expected return date by June 30. As a general rule we allow supervisors a grace period through August to complete, obtain signatures, and get the forms returned to HR. However, there are guidelines for minimum salary increase amounts on July 1 unless there is an existing written negative appraisal. Therefore, we monitor any requests for salary increases less than the minimum to ensure the appraisal has been completed. This year we had no cases falling under the guidelines. At the time of this writing we have about 60% return of completed appraisals. The year-end report will provide the final analysis on the performance appraisal participation.

Objective 3: It is expected that the detail of this exercise will be delineated in the year-end report. The plan would be to include the number of positions that were involved in the recruitment processes during the year and the process(es) that are followed with regard to each employee category. Costs will be reviewed through a collaborative effort with the ISU HR employment section.

PERSONAL PROPERTY

System Indicators:

None.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:

Critical Items

There are no critical items to report.

Significant Changes

There are no significant changes to report.

Self-Assessment Effort to Date

Most of the performance measures in the CY2004 plan are statistical in nature. In order to have any meaning, a full year's worth of data must be accumulated. All scheduled inventories are proceeding as planned. In general, all assessment efforts are proceeding according to plan.

COMMUNICATIONS AND TRUST

System Indicators:

Objective 1.1: Development and initial implementation of a peer review process to survey Ames internal and external communications community involvement programs.

Measure 1.1: Significant progress toward the establishment of a peer review process.

In this initial stage of the peer review process, both parties will judge an appropriate pace for the actions in developing the peer review process. During the initial year, these are the performance measures we will use to measure progress toward the goal of having an ongoing peer review process:

a. Management approval of the use of a peer review process as part of the Performance Assessment Agreement and the Laboratory's performance improvement process
b. Management approval of the minimal costs associated with operating the peer group
c. Identification of specific members of the peer group
d. Invitation/Recruitment of those members
e. Prepare presentations for peer group by segmenting various public affairs activities into functional sections and demonstrating goals and objectives of each, i.e., media relations, community relations, internal communications, management communications, publications
f. Preparation of evaluation criteria to be used by the peers for judging the effectiveness of Ames' programs
g. Establishment of a charter to guide the peer group's deliberations (primarily to determine whether the peer group's judgments will determine the Performance Rating or will be used as a fresh set of eyes to advise and guide Ames' future public affairs activities)
h. First meeting of the peer group

General discussion of the Peer Review Process for Ames

The Peer Review Process for Ames should be considered a multi-year effort to gather a divergent set of views to review the ongoing and future plans for Ames Public affairs activities.

In one model the results of the Peer Review are used to determine the Laboratory's Performance Rating for the Communications and Trust Activity. In another model the Peer Review Panel performs as an outside consultant to bring expertise and perspective to guide the public affairs activities of the Laboratory; and to provide input into the Laboratory's self-assessment and the Department's final rating.

Operating the Peer Review group can take several forms.

Because of resource considerations, a very localized group might work well to keep costs low. In that case, Ames might consider gathering public affairs, marketing, community relations, or media relations professionals from Iowa State University, federal/state government, a large bank, one of the publishing companies in Des Moines. Other DOE facilities use one or more Laboratory public affairs professionals because of their familiarity with DOE's and the scientific culture.

If Ames resources are not available to pay for travel, one of the DOE Laboratory people might be willing to volunteer the time and travel resources to aid a sister lab.

DOE participants would observe but not participate in the peer review., unless participation is deemed appropriate by DOE and Ames Laboratory Public Affairs. DOE would also receive copies of the peer review report.

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Expectation 1.1: In the 2004 Assessment period Ames would accomplish a minimum of the activities a through e listed in Measure 1.1. Activities f through h would be scheduled for the next performance year.

MIDYEAR RESULTS: Ames has completed measures a and b and part of c and d. Under c, Ames has identified three members of the peer review group. Under d, Ames has received confirmation of participation from one of the three members being considered.

Objective 2.1: Develop and execute an integrated communications plan for one Ames Laboratory cutting-edge research or technology accomplishment. Attempt to identify a second technology and begin the planning process. Suggested items to be covered under plan include:

External:

a. Develop a list of publications and broadcast media to pitch the story to
b. Place an article in several (remove several) key publications
c. Develop a news release on research or technology
d. Consider developing a video news release
e. Hold a media event, unless it is deemed a security concern by Laboratory management
f. Prepare video clips of the technology, distribute to media and post on website
g. Get coverage in publications such as Pulse, DOE this Month, and publications from other institutions which may have co-sponsored the research (if applicable)
h. Send copies of coverage to thought-leaders in the state and in the scientific community
i. Use as centerpiece for community meeting, Open House, tours by school groups and dignitaries unless events are deemed a security concern by the Laboratory management
j. Ensure that when reporters search on that topic, that Ames Laboratory appears in the first six search citations
k. Develop a speech element for inclusion in a Secretary of Energy speech, upon request

Internal:

a. Hold an Ames Laboratory Lunchtime Information Exchange (ALLIE) featuring this research, pending approval of appropriate principal investigator (s)
b. Write Insider and Inquiry articles on next accomplishment

Expectation 2.1: Ames identifies appropriate technology, selects appropriate promotion tools from list (as budget constraints allow), and executes those activities.

Measure 2.1: If Ames fails to identify an appropriate technology, the Laboratory will explain the reasons this Expectation could not be accomplished.

MIDYEAR RESULTS:

External:

Ames has completed a, b, c, d and h. Articles on the research have appeared in key print publications and in broadcast media. Ames did not have to prepare a video news release as a local television station did a video report on the research and we are able to use that video for our purposes (for example, the video will be aired at our Ames Chamber of Commerce Open House. Although Ames did not hold a media event per se as is mentioned under e, the Laboratory did provide media tours on a one on one basis. Under f, the Laboratory did not provide video images, but did prepare still images of the work for print media and distributed them along with the news release. These images are posted on the website. Under h, the Laboratory sent a copy of the news release on this topic to opinion leaders. Congressman Tom Latham is an example of this measure. Mr. Latham was instrumental in generating funding support for the Midwest Forensics Resource Program. Under i, the research will be the focal point of an Ames Chamber of Commerce Business After Hours event in July. This event will bring approximately 200 Ames community leaders to the Laboratory to view cutting-edge research displays. Under j, when "toolmark identification" is typed into Google, the Ames research appears within the top 20 hits. Ames has not accomplished k because as of yet no requests for information have come from the Secretary of Energy's office.

Internal:

Ames Laboratory has not held an ALLIE on this topic. An article on this research has appeared in *Inquiry* magazine and will appear in *Insider* in the September time frame.

Ames has tentatively identified a second technology upon which to build an integrated communications plan. This topic is yttrium-silver, rare earth intermetallic compounds that are ductile at room temperature.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:

Critical Items

None

Significant Changes

None

Self-Assessment Effort to Date

None

INFRASTRUCTURE - ENERGY MANAGEMENT

System Indicators:

OBJECTIVE 1.0: Energy Management initiatives are manages consistently with a Comprehensive Energy Management Program and Plan that includes the minimum requirements of Department of Energy (DOE) O 430.2A, Departmental Energy and Utilities Management.

MEASURE 1.1: Comprehensive Energy Management Program and Plan (CEMP) has been updated to include minimum requirements of DOE O 430.2A, and major facilities contracts contain the Contractor Requirements Document (CRD) of DOE O 430.2A.

EXPECTATION 1.1: Energy requirements accomplished/requirements scheduled to be accomplished during the fiscal year in accordance with the CEMP > 0.75.

Gradient	Metrics
Outstanding	≥ 0.95
Excellent	≥ 0.85
Good	≥ 0.75
Marginal	< 0.75

EXPECTATION 1.2: CRD, as appropriate, is incorporated into major facilities contracts; laboratory CEMP updated by December 2004.

Gradient:

CEMP updated by December 31, 2004, and as appropriate, CRD incorporated by December 31, 2004.

MIDYEAR RESULTS: The Ames Laboratory In-House Energy Management Plan includes 7 requirements for completion by the end of CY2004. Currently, the Ames Laboratory is on schedule to complete all 7 items prior to the end of CY2004. The CEMP will be updated by December 31, 2004.

OBJECTIVE 2.0: Energy Use Reductions show continuous improvement and are on target toward meeting DOE energy efficiency leadership goals consistent with DOE O 430.2A.

MEASURE 2.1: $$\frac{PY - CY}{PY} \times 100 = Percent\,\mathrm{Re}\,duction$$

Where PY = previous year energy use per gross square foot and CY = current year energy use per gross square foot as reported in DOE's Energy Management System 4.

EXPECTATION 2.1: Energy use per gross square foot is "5" percent less than the previous year.

Gradient	Metrics
Outstanding	≥ 5%
Excellent	≥ 3% < 5%
Good	≥ 1% < 3%
Marginal	< 1%

MIDYEAR RESULTS: The energy usage per gross square foot for the year to date shows a decrease of 6.4%. Energy use is sensitive to operational and climatic differences year to year so the decrease for the year may differ significantly.

OBJECTIVE 3.0: Develop and implement Water Efficiency Program and Plans

MEASURE 3.1: Establish a Water Efficiency Program and Plan to implement at least 4 of the Best Management Practices (BMP) published by the Federal Energy Management Program (FEMP) for facility planning processes and operations.

EXPECTATION 3.1:

1. Provide potable water use for each site in the FY 2004 Annual Report to the President/Congress on Energy Management; and

2. Provide a Water Management Plan and demonstrate the implementation of at least 2 BMP at 50 percent of the total site facility square footage.

Gradient	Metrics
Outstanding	≥ 80%
Excellent	≥ 60%
Good	≥ 50%
Marginal	< 50%

MIDYEAR RESULTS: Potable water use will be submitted at the end of the fiscal year in the *FY2004 Annual Report on Energy Management*. The Best Management Practices (BMP) published by the Federal Energy Management Program (FEMP) have been reviewed for feasibility to Ames Laboratory facilities and operations. The Laboratory is in the process of writing the Water Management Plan to implement the top BMP's.

OBJECTIVE 4.0: Purchases of energy efficient technologies include low standby power devices.

MEASURE 4.1: FEMP recommended purchasing low standby power devices.

EXPECTATION 4.1: Acquisition systems were modified to facilitate the purchase of low standby power devices by December 31, 2004.

Note: A list of device types and specific products with recommended low standby levels can be found at http://oahu.lbl.gov/.

Gradient	Metrics
Outstanding	≥ 5
Excellent	≥ 4
Good	≥ 3
Marginal	< 3

MIDYEAR RESULTS: Ames Laboratory has not yet modified acquisition systems to facilitate the purchase of low standby power devices.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:
Critical Items

None

Significant Changes

Energy Management activities have been progressing according to plans. There have been no significant changes in the energy management area in the year to date.

Self-Assessment Effort to Date

The Laboratory continues to work toward meeting the objectives and expectations in the Energy Management Functional Area. Assignment of an adjectival rating is not possible at this time.

INFRASTRUCTURE - FACILITIES MANAGEMENT

System Indicators:

OBJECTIVE 1.1: Fully populate the Facility Information Management System Maintenance (FIMS) and associated fields with accurate information for all real property assets at Ames.

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MEASURE 1.1: Complete and accurate information is entered in the six maintenance and associated fields. The fields that will be measured are: Deferred Maintenance; Annual Required Maintenance; Annual Actual Maintenance; Inspection Date (Maintenance); Replacement Plant Value; and Deficiency Systems (if applicable).

EXPECTATION 1.1: The Laboratory will populate and validate 100 percent of the fields identified above for all the real property assets (buildings and other structures) listed in FIMS.

Description of Method:

$$\frac{\text{Total number validated fields}}{\text{Total number of required fields}} \times 100 = \%\ \text{Validated}$$

Performance Level	Metrics
Outstanding	100%
Excellent	95 - 99%
Good	90 – 94%
Marginal	85 – 89%
Unsatisfactory	< 85%

Notes and Assumptions:

Total number of required fields equals the number of real property assets (buildings and other structures) at the site times the number of data fields identified above.

Total number of validated fields equals the number of maintenance and associated fields identified above that have been populated **and** validated for accuracy.

MIDYEAR RESULTS: Utilizing FIMS reports 105, 112 and 132, all six fields listed above in Measure 1.1 were validated for all Laboratory buildings and structures. 100% of the fields were populated and validated which is “Outstanding”.

Compliance Items:

Consistency with DOE prime contract requirements and all applicable DOE orders.

Midyear Report:

Critical Items

None

Significant Changes

None

Self-Assessment Effort to Date

None.

INFRASTRUCTURE - MAINTENANCE

System Indicators:

OBJECTIVE 1.1: Manage the Operation Expense (OE) funded Maintenance and Repair BackLog (MB) to maintain or improve the condition of real property assets (facilities) in an Excellent or better condition.

MEASURE 1.1: The Facility Condition Index (FCI) for the fiscal year associated with the performance period.

EXPECTATION 1.1: The FCI, expressed as a percentage, is defined as the Total Needed OE funded Maintenance and Repair (M&R) Deficiencies (at the end of the fiscal year associated with the performance period) divided by the Current Plant Value (CPV).

$$FCI = \frac{TotalNeededM\ \&\ RDeficiencies(\$)}{CPV(\$)}$$

FCI Goal for CY2004	Metrics
Outstanding	< 2%
Excellent	2% - 4%
Good	4% - 6%
Marginal	6% - 10%
Unsatisfactory	> 10%

MIDYEAR RESULTS: Midyear results are not available because the FCI is updated on an annual basis. Annual results are available at the end of the fiscal year when the results of the Condition Assessment Survey activities and completed projects are incorporated into the data systems.

OBJECTIVE 1.2: Achieve an Operation Expense (OE) Annual Maintenance Investment Level to sustain and improve real property infrastructure.

MEASURE 1.2: The Maintenance Investment Index (MII) for the fiscal year associated with the performance period.

EXPECTATION 1.2: The MII, expressed as a percentage, is defined as the Actual OE funded Maintenance and Repair (M&R) Expenditures (at the end of the fiscal year associated with the performance period) divided by the Current Plant Value (CPV).

$$MII = \frac{ActualMa\,\mathrm{int}\,enanceExpenditures}{CPV(\$)}$$

Gradient	Metrics
Outstanding	> 1.5%
Excellent	1.5% - 1.4%
Good	< 1.4% - 1.3%
Marginal	< 1.3% - 1.2%
Unsatisfactory	< 1.2%

MIDYEAR RESULTS: The actual maintenance expenditures are reported quarterly against planned expenditures. The planned expenditures will result in a MII of 1.4%. Actual expenditures were slightly less (~3%) than planned through the second quarter. Third and fourth quarter planned expenditures were adjusted accordingly.

OBJECTIVE 1.3: Make continuous improvements in the productivity, service, efficiency and cost savings associated with the facility maintenance and facility engineering areas and activities, especially those areas and activities that are identified as having good potential for improvement.

MEASURE 1.3: Evaluation of improvements achieved during the performance period.

EXPECTATION 1.3: Identify all improvements achieved during the performance period and assign a point value to each improvement according to the following Table:

Value	Description of Improvement
5	$10,000 or more of one time or annual cost savings in the form of material or contract dollars that will not be spent by the facility maintenance organization or in the form of labor savings that will allow other work to be accomplished
4	$5,000 to $9,999 of cost savings
3	$2,500 to $4,999 of cost savings or very significant improvements with insignificant or no associated cost savings, for example, improvements in the services provided or the quality or timeliness of service provided
2	$500 to $2,499 of cost savings or significant improvements with insignificant cost savings
1	$499 or less cost savings or minor improvements

Continuous Improvement Goal for CY2004	
Outstanding	> 10
Excellent	7 – 9
Good	4 – 6
Marginal	2 – 3
Unsatisfactory	< 1

MIDYEAR RESULTS: Continuous improvements activities are a normal part of infrastructure maintenance operations. Several improvement items have been implemented in the year to date. They have not been evaluated and categorized. Based on the continuation of past experience, it is anticipated that this area will rate “Outstanding” for the year.

Compliance Items:

None

Midyear Report:
Critical Items

None

Significant Changes

None

Self-Assessment Effort to Date

The Laboratory continues to work toward meeting the objectives and expectations in the Infrastructure Maintenance Functional Area. Assignment of an adjectival rating is not possible at this time.

TECHNOLOGY TRANSFER AND WORK FOR OTHERS

System Indicators:

OBJECTIVE 1.0: To support DOE's missions through collaborations having the potential to benefit the nation through support of national policy objectives, or to contribute to the national economic and scientific base. This will be accomplished through resource-shared R&D initiatives between the Laboratory and other organizations.

MEASURE 1.1: A variety of media is used to inform the public of the wide range of Laboratory capabilities and mechanisms/tools available to facilitate technology collaborations which support DOE's mission and national policy objectives or to contribute to the national economic and scientific base.

EXPECTATION 1.1: The Laboratory takes a proactive approach to public outreach through such activities as maintaining current information on its Web pages, conducting presentations, issuing press releases and newsletters, distributing up-to-date pamphlets, and attending meetings and conferences where potential collaborations can be nurtured.

OBJECTIVE 2.0: The Ames Laboratory Technology Partnering program is managed efficiently and effectively.

MEASURE 2.1: Technology Transfer and Work for Others objectives and goals are included in programmatic planning.

EXPECTATION 2.1: Laboratory Institutional Plans address past, current and future partnering activities and goals. The information included in the Plans is accurate, useful and timely for use in DOE reviews and reports.

MEASURE 2.2: Compliance with applicable laws and authorities is assured through appropriate controls.

EXPECTATION 2.2.a: Procedures are in place and documented to assure compliance with laws and authorities.

EXPECTATION 2.2.b: Project records are complete and contain the appropriate documentation to demonstrate compliance.

MIDYEAR RESULTS:

Measure 1.1: With the help of Public Affairs, numerous press releases have been issued on the Laboratory's science and intellectual properties. In addition, the Laboratory's website has been revamped and the Industrial Outreach websites (internal and external) and the Doing Business with Ames Laboratory sections of the Laboratory's website have been redone as well. During the first six months of 2004, the Office of Industrial Outreach has continued interactions with various potential, new or existing partners, including:

- Viable Technologies
- Astronautics of America, Inc.
- Silberline Manufacturing Co., Inc.
- Energetics

- MMI

In addition, our scientists continue to make contacts with industry at their conferences and meetings.

Measure 2.1: Technology Transfer and WFO objectives and goals are included in the annual performance evaluation of the Manager – Industrial Outreach and Technology Administration. In addition, DOE's Technology Transfer Crosscut report, the Summary of WFO report, and the DOC's Annual Technology Transfer Report all provide indications of the results of technology transfer at Ames Laboratory and project the work effort for at least the current year plus one. All Laboratory Institutional Plans include a section on WFO following the guidance provided by DOE-SC, and the Resource Projection section includes actual and projected funding of WFO. The Draft and Final Institutional Plans are completed within the time specified by DOE.

Measure 2.2: All CRADAs are reviewed and signed by DOE prior to signature approval by the Laboratory and any WFO that has non-standard terms and conditions is reviewed by DOE-CH prior to the Laboratory entering into the agreement. All CRADAs have a joint work statement prepared and submitted to DOE-CH prior to negotiations and all WFO's have a Participant Information Questionaire (PIQ) completed and sent to DOE-CH prior to negotiations taking place. Agreements with Small Business and Not-for-Profits have the waiver of added factor form completed and approved by DOE-CH prior to negotiation of the agreement. All CRADAs and WFOs are in accordance with DOE Orders 483.1 and 481.1, respectively.

Compliance Items:

Work performed for other Federal agencies that is in support of Counter Terrorism and Homeland Security is imposed at a zero percent Federal Administrative charge, as directed by the DOE Chief Financial Officer in his May 8, 2002, memorandum.

Midyear Report:
Critical Items

None

Significant Changes

In April, the IG visited Ames Laboratory to perform an audit on Royalty Income. The report is not yet published, but one of the concerns mentioned in the close-out meeting was the vague description of various items requested in the Annual Technology Transfer report for the DOC, and the Laboratory's/University's understanding of the definitions of a couple of the collected datapoints.

Self-Assessment Effort to Date

A sustained effort has been made so far this year to receive final reports for completed research agreements on a timely basis. The R&D database has been queried monthly to see which, if any, agreements will be completed within the month or the following month. A follow on email is then sent to the PI reminding them of the deliverable. During the first half of 2004, we sent out 13 reminders and have received 8 reports. We will continue to remind the PIs of their responsibilities under various research agreements.

As mentioned above, the external website for Technology Transfer has been revamped to conform with the new format of the Ames Laboratory website. We are in the process of revamping the Ombuds page to also conform to the new style sheets.